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R.N.D. MOHAR

LABOUR SHORTAGES IN THE AGRICULTURAL SECTOR OF THE MALAYSIAN ECONOMY - WITH REFERENCE TO THE RUBBER AND OIL PALM ESTATES

ABSTRACT OF THESIS

The labour shortage in the plantation industry is largely a result of the exodus of estate youths to the urban centres. Low earnings are not the main reason behind the urban migration. It is not so much a matter of relative earnings as status, prospects and life-style. Also, estate employment does not provide a steady income. Earnings fluctuate with changes in the price of the commodity.

To curb urban migration would stem the flow of labour needed to work in the factories. The shift from agriculture to industry is part of the inexorable process of change in a developing economy. Immigrant labour is a possible short-term measure to alleviate the labour shortage in the estate sector. The permanent solution lies in mechanisation.

'LABOUR SHORTAGES IN THE AGRICULTURAL SECTOR OF THE MALAYSIAN ECONOMY - WITH REFERENCE TO THE RUBBER AND OIL PALM ESTATES'

by

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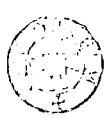

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1. THE EARLY YEARS

The thesis begins with a look at the early years of the establishment of the rubber and oil palm estates. The chapter traces the development of the natural rubber and oil palm industry in the country. It also looks at the importation of labour arising from the inadequate local workforce to support the expansion of the rubber estates. This should help towards an understanding of the present ethnic composition of the estate labour force. Mention is also made in the chapter of the appalling conditions of employment as this helps explain the social stigma attached to estate employment today, the work being associated with cheap exploitable labour.

1.1 The Development of the Natural Rubber and Oil Palm Industry

The introduction of rubber took place in 1877 with the arrival of the first seedlings into the country. However, the earliest planting of rubber was unsystematic and not undertaken as a serious venture. The initial lack of interest was attributed to the profitability of coffee. Between 1896 and 1899, the price of coffee fell and this greatly stimulated the interplanting of coffee with rubber.

The area of rubber spread quickly between 1900 and 1905 from about 2,400 hectares to 18,600 hectares. This was a result of the high and rising price of rubber, generated by the rapidly increasing demand for pneumatic tyres in the automobile industry. Average annual prices of rubber in London rose from M$2.36 per kilogram in 1900 to M$5.55 per kilogram in 1906. A 'classical' boom in prices in 1909 stimulated further planting of rubber. The total planted area rose from 218,900 hectares to 381,200 hectares between the years 1910 and 1912.

The slump in rubber prices between 1911 and 1914 severely reduced the profitability of the crop. The drop in prices was a result of the large increases in production following the extensive planting of rubber carried out earlier. The annual average price of rubber fell from M$9.70 per kilogram in 1910 to M$4.96 per kilogram in 1911. The price dropped further to M$4.47 per kilogram in 1912. The declining trend continued the following year, with little recovery in 1914. Consequently, new planting on estates were greatly curtailed between 1913 and 1914.

The large purchases of the commodity by the United States boosted rubber prices in 1915. The upturn in price, coupled with improvements in organisation on the estates, sharply increased profits. These circumstances stimulated further extensive planting of the crop. Between 1916 and 1917, an additional 67,000 hectares were planted with rubber.

The rapid expansion of rubber cultivation on estates was hampered by shortages of finance. The resources of overseas money markets, particularly that of the United Kingdom (U.K.), were harnessed through the medium of corporate ownership. Rubber companies were formed and floated on the stock market in London. It was at this juncture that 'agencies' became vital in channelling capital from the U.K. to, the then, Malaya.[1] These were British merchant firms trading in the Far East. The latter were excellently placed to bridge the gap between the local European planters and absentee London shareholders, for whom their reputation as established Far Eastern traders was a valuable assurance.

The form of participation by the merchant firms varied. Commonly, the firm was appointed the secretary of the company and managing agent of the associated estates in Malaya. The latter involved the tasks of arranging purchases and sales, appointing

competent managers for individual estates and providing them with general supervision and technical advice. Being secretary entailed maintaining share registers, arranging directors' meetings and ensuring that legal obligations of the company were fulfilled. Substantial fees were charged by the firms for their services. Often, participation extended to ownership, with the firm holding a proportion of shares in the new company.

By 1908, many expatriate estates in Malaya were owned by limited companies, mostly registered in London and floated under the auspices of the agency houses. Planted area owned by overseas interests reached almost 384,000 hectares by the close of 1917. In contrast, local ownership stood at only 45,000 hectares. The largest proportion of overseas investment, about 85 per cent, was controlled by British concerns. A further 7 per cent was held by Japanese groups. The balance came from Shanghai, the United States, France and Belgium.

Whilst price was the major stimulus to expansion, other factors made Malaya ideal for the development of the natural rubber industry.[2] These were namely a good climate, political stability, an excellent system of transport and a ready availability of land. All were necessary to encourage the investment of huge capital sums from abroad, without which, the rapid progress of the industry could never have taken place.

The industry benefitted from the externalities of a system of transport which were already in existence by 1900 to serve the tin mines and linked the interior areas to the major exporting points. Land was granted on a perpetual lease for rubber planting at an annual minimal rent of only 25 cents per hectare for the first ten years, and $1.24 per hectare thereafter. The rents were raised in subsequent years, but they were still extremely low when compared to

the very high returns received from cultivation of the crop. Thus, there is little doubt that rubber was almost an ideal crop given the physical, economic and political environment of Malaya in the early twentieth century.

The oil palm industry is relatively 'new', for though the crop was first introduced in the country in 1903, its rapid development did not take place until the sixties. Although Malaya was the largest world producer of rubber by 1916, oil palm cultivation was yet to be undertaken on a commercial scale in the country. It was planted purely as an ornamental tree until 1912, when government experimentation with the suitability of the crop began. The first oil palm estate was established in 1917.

The transition to oil palm was slow. In 1925, only 3,237 hectares had been planted with oil palm. By 1930, the total planted area increased to 20,234 hectares. During the next ten years, only an additional 10,926 hectares were planted with oil palm. This was attributed to the low prices of oil palm products in the 1930s. After the Second World War, prices of oil palm products were some 4-5 times higher and remained stable, which encouraged further new planting of the crop. The total planted area under oil palm reached 38,849 hectares in 1950 and this rose to 54,632 hectares by the end of the decade.

Foreign capital and entrepreneurship was to a large extent responsible for the development of the oil palm industry.[3] The agency houses mentioned earlier played a similar integral role. In the early twentieth century, the European-owned estates were generally small proprietory enterprises. Many planters had little capital resources to survive the cyclical economic fluctuations and their properties were purchased by the agencies.

Central control under a common agency firm enabled groups of estates to achieve greater efficiency and stability by drawing from a pool of specialised services and capital resources. These units gradually expanded under the auspices of the agencies, whose high repute attracted investment from overseas in such companies. The agency assummed responsibility to its shareholders in the U.K. for formulating financial policy, management programmes and the marketing of estate produce.

The rapid 'take off' of the oil palm industry did not occur until the sixties. This was brought about by the declining rubber prices and the desire for diversification. In 1964, the price of rubber dropped to 150.2 cents per kilogram from 283.3 cents per kilogram in 1960. The price deteriorated further to 117.1 cents per kilogram in 1968. The depressed rubber prices resulted in a massive switch to oil palm planting by the estates. Most commercial planting companies accorded top priority to oil palm in their new or replanting programmes wherever the soil and climate were suitable. Thus, the 1960s witnessed a phenomenal rate of development of the oil palm industry in the country. Total planted area under oil palm increased significantly from 71,029 hectares in 1963 to 193,441 hectares in 1970.

1.2 The Labour Force

A sufficient supply of labour to open up the new lands was undoubtedly crucial to the vast expansion of rubber growing on estates. However, the labour force at the end of the nineteenth century was inadequate to support this expansion. The indigenous population were well off with their own land as farmers and not attracted to employment on the estates. Thus measures were taken to increase the supply of labour through the recruitment of immigrant workers.[4]

As the rapid expansion of the oil palm industry did not take place until the sixties, it did not face the labour problems experienced by the rubber estates. By then the labour supply was adequate to support the expansion of the industry.

1.2.1 Tamil Labour

The main effort at recruitment of immigrant workers was directed at the Tamils. The reasons for this preference were that they were cheap to employ, docile and once settled on an estate were prepared to stay a long while. Recruitment was also simpler because of the country's relationship with India as a fellow colony. A majority of the early Indian workers on rubber estates were 'independent' immigrants who came to Malaya on their own initiative. As it was difficult to swell the number of estate workers in this category, labour was chiefly secured through the 'kangany' system of recruitment.

Under this system, a 'kangany', or estate foreman, was sent to the Madras Presidency of South India with his passage paid, an advance to cover the fares of the recruits and the promise of a commission for each Tamil worker brought back. The fares and other advances were deducted from the immigrant's pay. The latter thus began work in Malaya with an initial indebtedness. This system of recruitment gave rise to abuses. The immigrants were not kept properly informed of their state of accounts and extra sums were often debited. As a result, many immigrants were permanently short of cash. They were often forced to procure food and other supplies on credit, which inevitably led to a vicious circle of further poverty and debt.

Some Tamil labour were also brought in under the degrading 'indenture' system. The immigrants were secured for a contractual

period of two years through professional agents in South India who were far from scrupulous in their recruiting methods. Such labour were controlled by watchmen and mainly used in unhealthy rubber-growing areas where workers could not be hired. The published figures of the time denoted high rates of sickness and mortality amongst those concerned.

The existing means of recruiting Tamil immigrants were inadequate to meet the great demand for labour as the areas of rubber expanded. Stories of unfair practices had leaked back to India and discouraged new interest. Another problem was that the kangany-recruited labour commonly absconded to avoid the repayment of advancements, or were 'crimped' by other employers who offered higher wages. Such employers frequently did not import labour themselves, but secured it at the expense of those who did. Crimping of indentured labour also occurred.

To overcome the problem of inadequate supply of labour, the Tamil Immigration Fund was set up under an ordinance in 1908 and administered by the Indian Immigration Committee. Quarterly contributions to the Fund were made compulsory on all employers of Indian labour, the levy being based on the number of man-days worked. Initially, the Fund only paid for the sea passages of all independent and kangany-recruited labour coming to Malaya from South India. However, by 1913, almost all the costs of importing labour, including travelling expenses in Malaya and the employer's commission to the kangany were borne by the Fund. This enabled recruited immigrants to be brought to their place of employment free of all debt.

The establishment of the Fund greatly encouraged immigration. The total number of kangany-recruited and voluntary-assisted immigrants rose from 22,000 in 1909 to over 60,000 in 1910. The

success of the Fund led to the banning of indentured labour in the latter year. There also occurred a substantial emigration during the period, but in most years this was far exceeded by immigration. The net annual immigration of Indians reached a peak of 109,000 in 1926.

The world depression of the early 1930s saw a reversal in the trend. With mass unemployment on the estates, assisted immigration was suspended and free repatriation to India commenced. By the end of 1932, the labour force on all estates had dropped to about half its total in 1929. About 190,000 Indians had been repatriated and many more returned home on their own account. Conditions began to improve in 1933 and assisted immigration to Malaya was resumed the following year.

However, by now two factors had emerged. First, the Indian immigrants had begun to regard Malaya as their permanent home. Second, there had been great improvements in the utilization of labour on the estates. Many employers thus considered the national labour force to be large enough already and that there was no need for substantial net immigration.

The boom in output in 1937 greatly increased assisted immigration again. However, in the following year, production on the estates were reduced. Unemployment emerged once more on the estates and wages were curtailed. These events had repercussions in India. Already there was growing criticism amongst intellectuals in the country regarding the export of labour to Malaya.

Manifold political pressures forced the Government of India to prohibit all types of assisted immigration to Malaya on 15 June, 1938. The move was also intended to safeguard the conditions of Indian workers already in Malaya. Despite representations from the Malayan colonial authorities, assisted immigration was never again resumed.

1.2.2 Chinese Labour

The Chinese immigrants on estates were mainly recruited from South China. Their recruitment were arranged by 'lodging house keepers' who acted as brokers in the matter and had contacts with professional agents in China. On arrival, the immigrants were passed to labour contractors who paid their expenses of transport and subsistence, together with a commission. Until all the debts had been repaid, the immigrants were not permitted to leave the contractors. This often took a long time as expenses were frequently exaggerated and swollen by interest charges.

There were also a few formally indentured Chinese labourers employed by contractors working on rubber estates. These workers were hired according to a 300-day 'coolie contract'. They were paid less than other workers and often kept under guard. However, this type of labour was much less significant and their employment was banned in 1914.

Far more Chinese than Indians entered the country throughout the immigration period, but most were absorbed outside the rubber industry. The Chinese preferred employment in the tin mines where their aptitudes and skills earned them higher wages than could be obtained on the estates. They drifted to the estates only when no other work was available. A semi-permanent workforce eventually began to find its roots on the estates, but it was never of the magnitude of Indian labour. There were only about 55,200 Chinese immigrants employed on rubber estates in 1917.

Also, the constant efforts of contractors to boost wages, taken with the threat of abrupt departure when better opportunities presented themselves, was viewed as a disadvantage by the employers. However, despite the overall predominance of Indians,

Chinese immigrant labour also made an important contribution to the development of rubber estates.

The movement of labour between China and Malaya depended very much on the prevailing economic situation. The total number of Chinese immigrants in Malaya increased greatly during the 1920s. However, during the economic recession of the early 1930s, there was a huge net emigration to China. The further inflow of Chinese labour was severely limited by ordinance after 1930 due to political considerations.

1.2.3 Indonesian and Local Malay Labour

A far smaller number of Indonesian immigrants were employed on rubber estates. Indentured labour was directly secured for work on the estates through recruiting firms in Java with approval from the then Dutch colonial government of Netherland Indies. About 1,000 to 2,000 immigrants a year were recruited in this way from the beginning of the century up to 1913, after which the numbers began to decline. The immigrants were hired for a contractual period ranging from 300 to 900 days. However, few returned home at the termination of their contract.

Many left the estates to open up their own rubber smallholdings. As the immigrants shared cultural and racial similarities, they were able to settle alongside the local Malay communities. They were also eligible to obtain land within Malay reservations. Some of the new smallholders continued to work on the estates on a monthly basis whilst their rubber was still immature. The total number of Indonesian immigrants on estates, both free and indentured, reached around 20,000-25,000 in 1912. The figure did not increase much thereafter.

Many planters would have liked to obtain much more labour from Java. Apart from being more manageable than the Indians, the Indonesians also had the advantage over the other immigrants in that they were accepted by the indigenous population. However, the planters were faced with the great disadvantage of high recruiting costs. These commonly reached $60-$70 per person, compared to $40-$50 incurred on Tamil labour. Long delays in concluding the transfer of labour were also frequent.

Such problems were related directly to the small scale and uncoordinated nature of Javanese migration. Efforts were made to broaden and rationalize their recruitment, but none proved successful. This was largely because the move lacked the support of the Malayan colonial government who were generally diffident about connexions with its Dutch rivals.

The use of local labour for regular tasks on the rubber estates was mainly confined to those states where fewer immigrant workers were available. Elsewhere, the Malays were employed chiefly for the clearing of land on a contract basis. Their seasonal preoccupation with activities on their own farms made them unsuitable as members of a regular labour force. The total number of Malay workers on estates reached around 20,000 by 1917, but there was a subsequent drop in numbers.

1.2.4 Conditions of Employment

The early rates of payment to estate workers were absymally low, even after taking into account the higher purchasing power of money at that time. The average daily rates of Tamil workers on rubber estates increased from 18 cents in 1900 to 25 cents in 1910. Apart from a slight decline the following year, wages stayed at around this level until 1917. The stability of the rates reflected the

successful management of the Tamil Immigration Fund. The cash wages of Indian workers improved little over the 1920s and 1930s.

The wages of Malay and Indonesian workers followed those of the Indians. The rates paid to Chinese workers were usually both higher and more susceptible to immediate economic conditions. During the boom of 1925-1926, the average daily payment to Chinese contract workers climbed to well over $1.00 per day, which was double the rate paid to Indian male tappers. On the other hand, in the economic recession of 1932, the rates paid to Chinese workers declined spectacularly to the level of 30 cents a day for very limited work.

The conditions of employment on many early rubber estates were appalling. Poor and badly sited housing aggravated the depredations of disease. Labourers' quarters on the estates were of the 'line' type, that is, rows of small rooms with low ceilings, which often housed the entire families. Legislation covering the standards of medical care and housing was progressively introduced.

A big milestone in the welfare of estate workers was the introduction of the new Labour Code in 1923. The legislation, among many measures, initiated the fixing of standard wages and enforced more strictly earlier regulations concerning housing, health and medical requirements. As the Indian immigrant workers were normally housed on the estates, the legislation was essentially directed at their employers. The Chinese workers generally lived off the estates and commuted daily to their place of work.

The labour reforms were brought about as a result of the increasing concern by the Government of India for the welfare of its immigrants abroad. This was evident in the appointment of an official Agent of the Government of India in 1922, with express responsibility for the welfare of Tamil workers in Malaya. Indeed, the new Labour

Code was conceived in India and pushed through in Malaya at the instigation of the Agent.

Notes:

1. Colin Barlow, The Natural Rubber Industry: Its Development, Technology and Economy in Malaysia (1978), pp.31-35.

2. Ibid., pp.27-28.

3. Harcharan Singh Khera, The Oil Palm Industry of Malaysia - An Economic Analysis (1976), pp.129-131.

4. Colin Barlow, op.cit.,p.41ff.

2. THE ESTATE SECTOR IN THE 1960'S and 1970'S

This chapter serves as a background for the discussion on the labour shortage issue. It is divided into two sections. The first section of the chapter looks at the major developments that have occurred in the estate sector during the sixties and seventies. The second section highlights the trends in labour utilization on the estates during this period.

2.1 Developments on Estates

The 1960s and 1970s saw significant developments in the estate sector. This section looks at the major developments that have occurred in the sector during the two decades.

2.1.1 Area and Number of Estates

The most notable feature of development in the estate sector during 1960-1980 was the readjustment of the planted area between rubber and oil palm. The total area under rubber estates decreased from 782,859 hectares in 1960 to 491,551 hectares in 1980, or by 37.2 per cent. On the other hand, the total planted area of oil palm increased from 71,029 hectares in 1963 to 495,412 hectares in 1980. This situation arose from the expansion of oil palm at the expense of rubber referred to earlier in chapter one.

In the sixties, estates started to switch to oil palm from rubber and, till today, this trend has not stopped. As areas become due for replanting, oil palm is normally given preference over rubber. From the investor's point of view, the former has a shorter gestation period. The pay-back period for oil palm is estimated to be 8-10 years, whilst in the case of rubber it is around 12-15 years.[1]

Trends in numbers of estates are more difficult to assess than planted area. This is mainly because of the definition of an oil palm estate. The official criteria of an 'estate' (or plantation) is land, contiguous or non-contiguous, aggregating not less than 40 hectares and under a single ownership. However, any area under oil palm in an already existing rubber estate is regarded as an oil palm plantation. It is therefore inevitable that the total number of oil palm estates in any year will involve an element of double counting. Nevertheless, a decline in the number of rubber estates is evident, coinciding with the switch to oil palm cultivation. In 1963 there were 2,168 rubber estates. The numbers dropped to 1,685 in 1980.

The distribution of rubber estate sizes is highly skewed. A large number of the estates are small in size. More than two-thirds of the total number of estates in 1980 were less than 405 hectares each. The share of estates with 1,214 hectares and above apiece was only 5 per cent. In terms of planted area, the small and large estates accounted for 35.5 per cent and 30.7 per cent of the total hectareage respectively in 1980.

The skewed pattern of distribution is also characteristic of the oil palm estates. About 66 per cent of the total number of estates in 1980 were less than 405 hectares in size. The proportion of estates in the 1,214 hectares and above size group was only 17 per cent. However, in terms of planted area, the larger estates accounted for 64.6 per cent of the total hectareage in 1980. The smaller estates represented only 14.7 per cent of the total planted area.

2.1.2 Productivity on the Estates

There has been a substantial rise in productivity on rubber estates between 1960 and 1980. Yields on rubber estates rose from 759 kilogram per hectare in 1960 to 1,428 kilogram per hectare in

1980. This is a result of the major replanting programme with high-yielding material (HYM) which began in the mid-1950s. The general adoption of stimulants was also significant in contributing to higher productivity on the estates. The use of the stimulant, 'ethrel', reduces coagulation and permits a much extended period of latex[2] flow, thereby having a considerable effect on the yield of the tree. The higher yield is reflected in the increased production on the estates. Total output of rubber estates rose from 420,084 tonne in 1960 to 631,354 tonne in 1980.

The bigger estates, for which replanting is operationally easier and, on the whole, financially easier, had larger areas under HYM earlier. By 1973, no plantation larger that 1,213 hectares had less than 60 per cent of its area under HYM. In contrast, the smaller estates had the highest proportion of unselected material. The HYM, at the national level, yielded almost four times the output per acre of old unselected and mixed trees in 1973. Thus, differences in productivity between estate sizes were therefore great at that time.

However, the difference has decreased significantly during the 1970s. The smaller estates had 96 per cent of their total planted area under HYM in 1980. As can be seen from Table 2.1, the differential in yield between estate sizes in 1980 was only small. The increase in the area under HYM on the smaller estates could be due to the availability of funds as a result of the Government's directive to the commercial banks to extend credit to the agricultural sector.

Table 2.1: Yield by Planting Material and Estate Size Group, 1980[3]

Estate Size (Hectares)	Yield (Kilogram Per Hectare)		
	HYM	Unselected Seedlings and Mixed Stands	Total
0-201	1,291	465	1,280
202-404	1,352	564	1,350
405-809	1,441	1,039	1,440
810-1,213	1,508	-	1,508
1,214-2,023	1,511	-	1,511
2,024 & above	1,425	-	1,425
Total	1,430	607	1,428

Note: The ranges of estate size are unusual as they are originally based on classification by acres.

It can be seen from Table 2.1 that rubber yields increased with size up to the 1,214-2,023 hectare size group. Estates larger than 405 hectares, with the exception of the biggest size group, had above average yields. The smaller estates showed below average productivity. The differences could be due to the less use of stimulants, which are expensive, on the smaller estates. There could also be managerial differences. The highest yield was in the 1,214-2,023 hectare size group. This implies that the latter is the optimum size for estates in terms of output per hectare.

Irrespective of size, yields are higher on non-Malaysian than on Malaysian-owned estates, on average, by 10.8 per cent in 1980. The foreign-owned estates in the country are largely 'centrally managed' by agency houses. These estates are able to draw from a pool of specialized services and capital resources. For example, the agency appoints the managers for the individual estates and provides them with general supervision and technical advice. The non-Malaysian plantations thus have more competent managers running the estates than locally-owned ones.

Average yields on oil palm estates, expressed in terms of fresh fruit bunches, have increased from 5.8 tonne per hectare about twenty years ago to 17.8 tonne per hectare today. The increase in yields is largely due to the cross-breeding and selection of plant material. Indeed, Malaysia is the undisputed leader in the technology of palm oil production. This is evident in the demand for planting material from Malaysia by countries which have embarked on oil palm cultivation in recent years. The improvement in yields is also a result of the high standard of agronomic and management practices. Arising from the higher productivity on estates, total output of crude palm oil has increased from 91,793 tonne in 1960 to 2,396,733 tonne in 1980.

The oil palm industry is currently on the verge of a breakthrough in research that could raise yields by more than 30 per cent. Research is presently being carried out on the application of tissue-culture propagation technique to oil palm. In layman's language, the technique enables propagation from the tissue of a single plant. The 'cultured' plants will be uniform and have the same characteristics as that of the 'parent' plant. It would therefore be possible to select a palm which is high-yielding and reproduce plants that bear its characteristics. The current system of propagation by seed does not produce a uniform population.

2.1.3 Ownership of Estates

The overseas domination of rubber estate ownership began to decline in the 1950s. By 1963, just under 60 per cent of the plantation area remained in European hands. The proportion continued to fall to reach 43 per cent in 1973. This was partly due to the switch to oil palm cultivation by rubber estates under foreign ownership. In 1980, non-Malaysian estates accounted for 35 per cent

of the total planted area. However, in spite of the decline in ownership, the non-Malaysian estates accounted for more than one-third of the total output of rubber in 1980. Foreign ownership of rubber estates is predominantly British.

Malaysian ownership of rubber estates is highly concentrated in the smallest size group. About 73 per cent of the total number of Malaysian-owned estates in 1980 fell in the 201 hectares and less size group. However, local ownership of the largest estate size group has more than quadrupled between 1973 and 1980. The share of the total Malaysian-owned hectareage in this size group increased from 11.3 per cent in 1973 to 48.5 per cent in 1980. This trend is in line with the Government's policy of greater local ownership of the larger estates. Purchases were made in the large companies by the national corporation, PERNAS (Perbadanan Nasional), other statutory bodies and employees' provident funds sufficient to gain majority shareholdings.

The non-Malaysian ownership of rubber estates has a characteristic bi-modal pattern. A large number of the foreign-owned estates in 1980 was concentrated in the smallest and 405-809 hectare size groups. The former is more predominant of the Singaporean-owned estates. The latter size is typical of the European-owned estates. The largest concentration of foreign-owned plantation area in 1980 was in the 1,214-2,023 hectare size group.

The trend towards greater Malaysian ownership of plantations is also apparent in the case of oil palm. Local ownership accounted for 67.3 per cent of the total planted area under oil palm estates in 1980, compared with only 22.0 per cent in 1970. There has also been a distinct increase in local ownership of the largest estate size group. The proportion of Malaysian-owned hectareage in this size group increased from 18.7 per cent in 1970 to 36.6 per cent in 1980. In

terms of production, the Malaysian-owned estates contributed 65.6 per cent of the total output of crude palm oil in 1980.

Malaysian ownership of oil palm estates also tends to be concentrated in the smallest size group. More than half of the total number of Malaysian-owned estates in 1980 were in the 201 hectares and less size group. The largest concentration of foreign-owned plantation area was in the 2,024 hectares and above size group. The non-Malaysian estates are largely owned by British concerns.

2.2 Trends in Labour Utilization

This section highlights the trends in labour utilization on the rubber and oil palm estates between 1960 and 1980. It also serves as an introduction to the labour shortage issue in the plantation industry.

2.2.1 Rubber Estates

Over the period 1960-1980, there has been a decrease in the labour force on the rubber estates. The total number employed dropped from 285,300 in 1960 to 167,210 in 1980, or by 41.4 per cent. The number of workers in all categories[4] decreased significantly, ranging from 26 per cent for factory workers to 57 per cent for weeders. The number of tappers employed decreased by 39 per cent. The latter form the most important part of the workforce of any estate. Indeed, they are the essential 'producers' of the rubber industry. The decrease in the labour force can be ascribed to the decline in the total area under rubber estates, improved production techniques, and less new and replanting activities.

The total planted area of rubber estates declined from 782,859 hectares in 1960 to 491,551 hectares in 1980. This was largely due to the expansion of oil palm at the expense of rubber. As mentioned

earlier in chapter one, the switch to oil palm cultivation in the 1960s was brought about by the decline in rubber prices and the desire for diversification. The trend continued into the seventies with the anticipation of continuing better prices for palm oil.

The decline in the planted area was also a result of the conversion of rubber plantations within the fringes of large towns to housing estates. There also occurred the sub-division of estates into lots of less than 40 hectares for sale to individuals, who then cultivated the rubber on a smallholding basis.

The use of improved production techniques on rubber estates increased the productivity of labour. This included high-yielding planting material, stimulants, fertilizers, weedicides, pesticides, and mechanisation in field maintenance and processing. The average annual productivity of labour on rubber estates increased by more than two fold from 1,472 kilogram per worker in 1960 to 3,510 kilogram per worker in 1980.

The increase in labour productivity made it possible to employ a smaller number of workers per unit area of land. This is reflected in the increase in the land-labour ratio. The ratio of weeders to planted area increased from 1:12.8 in 1960 to 1:18.5 in 1980. The ratio of tappers to mature area[5] increased, though only marginally, from 1:3.0 to 1:3.7 during the same period. The latter implies that tapping is still a labour-intensive activity.

The areas newly planted and replanted with rubber decreased between 1960 and 1980. This thus reduced the need for labour. In 1960, about 36,800 hectares were newly planted and 177,400 hectares replanted with rubber, but, in 1980, the areas were 15,709 hectares and 52,856 hectares respectively.

In terms of ethnic composition, the Indians, as might be expected, still dominate the labour force. They accounted for 52 per

cent of the total employed in 1980. However, there has been a significant increase in the proportion of Malays in the labour force. The share of indigenous labour in the total workforce rose from 21 per cent in 1960 to 30 per cent in 1980.

The trend towards Malay employment on estates reflects the industry's response to the Government's policy of seeking to increase the share of indigenous participation in the major sectors of the country's economy. It also indicates the willingness of the Malays to move into regular estate employment.

The proportion of Chinese labour on the other hand dropped from 30 per cent to 18 per cent between 1960 and 1980. As pointed out in the earlier chapter, the latter are more mobile and would leave the estate for any activity generating a profitable reward once better economic opportunities presented themselves.

A major proportion of the labour force are directly employed. Contract labour accounted for only 10 per cent of the workforce in 1980. These workers are usually recruited from the surrounding villages. The organization of contract labour takes one of two forms.[6] First, the management can make an agreement with a contractor to provide labour to tap a certain area. A block sum of payment is made to the contractor, who then pays the individual worker on a piece-rate basis. The second alternative is where there is a contract directly with the worker, who is payed by results.

In the late 1960s, contract workers represented a significant proportion of the labour force. They accounted for 17 per cent of the total workforce in 1967. Advantages of their employment included a reduced need for supervision, which was the responsibility of the contractor, and, until recently, fewer obligations to be met in the way of non-wage benefits. However, there has been a marked

decrease in the number of contract workers between 1970 and 1980. The numbers dropped from 37,800 to 17,387 during this period.

The situation could reflect the increasing emphasis placed by the National Union of Plantation Workers and the government on making the conditions of 'third party contract workers' the equivalent of those received by direct employees. As a result, contract workers are entitled to benefits, such as housing allowances, sick pay and paid public holidays, which reduces the advantages of their employment to the estate management.

In late 1977, there emerged reports of labour shortage on rubber estates, and the shortfall seemed to increase in magnitude over time. However, the related decrease in total employment on rubber estates to the decline in planted area and improved production techniques, implies that, by and large, there is a surplus of labour in relation to the demand for their services. This conflicting development will be discussed in the next chapter.

2.2.2 Oil Palm Estates

In contrast, employment on the oil palm estates has risen during the period 1960-1980[7]. The situation corresponds with the switch to oil palm cultivation by the estates at the expense of rubber. In 1960, the oil palm estates employed only 15,560 workers, but, by 1980, the numbers had reached 77,840. This included part of the workforce previously employed on rubber estates prior to the switch to oil palm. The number of harvesters and weeders increased by 21,390 and 16,300 respectively. These categories of labour form the major workforce on the oil palm estates. The harvesters however are the critical 'producers' of the industry.

Although the employment creation has been phenomenal, the switch to oil palm cultivation has made estate workers redundant. Oil

palm cultivation is labour-intensive, but it is less so than rubber. It is estimated that, for oil palm, approximately one worker is required per six hectares of land. This is half the labour requirement of rubber estates, where one worker is needed per three hectares of land.

Estate planting of oil palm has slowed down over the last few years and is expected to continue to do so. Between 1975 and 1980, the area under oil palm estates increased at an average annual rate of 5.7 per cent, compared with 10.7 per cent per annum during 1970-1975. This is because most of the suitable rubber areas have already been replanted with oil palm. Thus there will be a slow down in the employment creation capacity of the oil palm industry.

The average annual productivity of labour on oil palm estates increased significantly from 5.9 tonne per worker in 1960 to 23.2 tonne per worker in 1980. The increase in labour productivity was due to better production techniques, which included advances in plant breeding, mechanisation in field maintenance and technological improvements in the processing of fruit bunches.

Improvement in output per worker is reflected in the increased land-labour ratio. The ratio of weeders to planted area rose markedly from 1:9.4 in 1963 to 1:20.7 in 1980. However, the ratio of harvesters to mature area[8] increased only marginally from 1:14.7 to 1:16.8 between 1963 and 1980. This indicates that the harvesting of fruit bunches is still labour-intensive.

The trend towards the employment of indigenous labour is also apparent in the case of oil palm estates. The Malays form the largest ethnic group. They accounted for 56 per cent of the labour force in 1980, compared with only 19 per cent in 1960. The proportion of Indian labour decreased from 53 per cent to 38 per cent over the same period. This was also the case of Chinese labour, its share of

the workforce declining from 27 per cent to 6 per cent between 1960 and 1980.

The labour force on oil palm estates is largely directly employed. Nearly three-quarters of the labour force in 1980 were directly employed. The proportion of contract labour on oil palm estates is relatively higher. Contract workers formed 26 per cent of the total employed in 1980. This though represented a decrease in their share of the labour force, as it was higher at 32 per cent in 1969.

The oil palm industry is also reported to be currently facing a labour shortage. This situation appears to contradict the surplus labour available, pointed out earlier, following the switch from rubber to oil palm cultivation by the estates. Part of the workforce were retained to work on the oil palm estates. But, as oil palm cultivation is less labour-intensive, the industry was unable to absorb all those previously employed on rubber estates. Thus, against this background, are the planters' claims of labour shortage a myth or reality? The issue will now be pursued further in the following chapter.

Notes:

1. Raja Tan Sri Muhammad Alias Ali, 'Productivity in Agriculture'. (Paper presented at the National Seminar on Productivity, 1982).

2. A milk-like suspension of rubber in plant sap. This is processed into smoked sheets, which is the usual form in which it is exported.

3. Department of Statistics, Rubber Statistics Handbook 1980 (1982), p.116.

4. These are tappers, weeders, mandores (or supervisors), arsenite sprayers, factory workers and administrative staff.

5. This is when tapping can commence. Areas are classified as immature until then. For rubber trees, maturity is in the sixth year of planting.

6. K.S. Nijhar, Wage Structure: A Case-Study in Malaysia (1976), p.56.

7. The categories of labour on oil palm estates are harvesters, weeders, mandores, arsenite sprayers, transporters, pruners, factory workers and administrative staff.

8. For oil palm, maturity is in the fourth year of planting, when the harvesting of fruit bunches can commence.

3. LABOUR SHORTAGE

Controversy surrounds the labour shortage issue. Is the shortage of labour in the plantation industry a myth or reality? This will be discussed in the first section of the chapter. It will be argued that the labour shortage is real. The second section then explores the factors behind the shortage of labour and will be largely concerned with rural-urban migration. However, the theoretical aspect of migration, for example, the Todaro model, will be referred to at a later stage in the thesis. The final section of the chapter proceeds to assess the nature and extent of the labour shortage in the plantation industry.

3.1 Myth or Reality?

The phenomenon of labour shortage in the plantation industry represents a dramatic reversal of previous trends. In the sixties, there was an extensive retrenchment of labour. This was a result of the massive switch by the rubber estates to oil palm planting. The trend continued into the seventies. Oil palm cultivation is less labour-intensive than rubber. Thus, there was surplus labour in the estate sector. The unemployment rate in the country must also be seen against this background of events. In 1980, there were 285,000 people unemployed, or 5.3 per cent, out of a total labour force of 5.4 million. Considering that the Government's goal of 'full employment' is a 3.6 per cent unemployment rate, surplus labour is clearly evident.

Thus, the planters' claims of an inability to recruit or attract workers in the light of surplus labour seems somewhat of a paradox. However, the unemployment figures cannot be convincingly used to refute the labour shortage claims. First, it is known that a number of people who register themselves as unemployed at the Labour

Exchanges are actually holding jobs and are hoping to get better employment. They are thus unlikely to want agricultural jobs. Data compiled by the National Employment Service of the Manpower Department indicated that job seekers looking for agricultural vocations in 1980 formed only 2.8 per cent of the total registered.[1] Second, labour shortage and surplus can exist side by side. Imperfect market conditions, such as institutional rigidities, immobility and lack of information, make it possible for such imbalances to persist.

Conceptual problems also tend to confuse the issue. Theoretically, labour shortage is assessed in relation to a situation in which the supply is inelastic in response to price changes. Thus it has to be shown that scarcity persists in spite of successive upward wage adjustments. It will be seen in the next chapter that earning trends and differentials generally provide unconvincing evidence of a tightening in the labour market. Current data available do not indicate significant increases in wages. This however is due to the nature of the wage system in the plantation industry.

Wages in the estate sector are largely determined by negotiations between the Malayan Agricultural Producers Association (MAPA) and the National Union of Plantation Workers (NUPW). The wage agreements normally run for a period of up to 3 or 4 years, depending on the category of labour concerned. Thus, any upward adjustment in the wage rates are not possible pending termination of the agreement. The current wage agreements covering rubber tappers and oil palm harvesters are due to expire only in the early 1980s. There is thus a time lag before the price of labour reacts to the bottlenecks in supply. Data are only available up to 1980 and thus may not reflect the newly emerging tightening of the labour market. Also, employers have resorted to non-wage adjustments,

such as the improvement of social infrastructure on estates and house ownership schemes, which are not reflected in the statistics.

In the wake of growing concern of the reports of labour shortage, surveys have been undertaken by various agencies. The findings concurred on one point, which is, that the labour shortage is real. The situation however is not yet one of a general shortage. Rather, it is currently serious only in certain localised areas. The shortage is particularly serious in those estates where job opportunities are readily available nearby and comparatively attractive.

There is an acute shortage of labour in the states of Johor and Pahang. The estates in Johor have to compete with the 'pull' of urban jobs in the neighbouring island of Singapore. In Pahang, the estates face competition from the many land development schemes being opened up in the state. On the other hand, 'surplus' labour, defined as persons capable of performing estate work but being currently unemployed, is reported in the states of Kedah and Penang. Imperfect labour conditions make it possible for such a 'dual' situation to exist.

The situation is partly due to institutional rigidities. Member estates of the Malayan Agricultural Producers Association (MAPA) are constrained by the rates reached in the wage agreements with the National Union of Plantation Workers. As such, these estates are unable to offer regional wage differentials to attract labour to the areas of shortage. Smaller, non-MAPA estates can pay higher wages and hire contract labour drawn from the surrounding rural areas. However, MAPA estates have also resorted to the latter measure. The hiring of contract labour is not bound by the regulations and higher wages can be offered. But with urban migration, even this supply of labour has become depleted. Estates have therefore

resorted to hiring illegal immigrant contract labour. There is currently a large force of illegal Indonesian immigrant workers employed on estates in the country.

The immobility of estate workers also allows labour shortage and surplus to exist alongside each other. The reluctance to move is due to close-knit family ties. In a study carried out by the Rubber Research Institute of Malaysia[2], about 60 per cent of the workers interviewed expressed their intention to remain on the estates as long as possible. The main reason given was family commitments. The United Planting Association of Malaysia[3] in its survey noted that, at most, only 10 per cent of the surplus labour available on member estates were prepared to consider relocation outside their districts.

Another imperfection in the labour market is the lack of information. In the study by the Rubber Research Institute of Malaysia[4], more than four-fifths of the workers interviewed were unaware of job vacancies on other estates. The few who knew received information from friends and relatives. An examination of the recruiting procedures adopted by the estates revealed that about 80 per cent of the managers advertised job vacancies through word of mouth to their workers. Only the remaining 20 per cent announced their requirement for labour through notice boards, recruiting agents and local newspapers.

It was also found that only 30 per cent of the managers interviewed contacted their colleagues on other estates to enquire whether unemployed persons were available. The findings thus reveal a lack of recruitment effort by the employers in the face of labour shortage. However, the reluctance of estate workers to move raises doubt as to whether labour can be drawn to the areas of shortage even if employers were to take steps to advertise their job vacancies.

3.2 The Contributory Factors

The labour shortage in the plantation industry is largely a result of the exodus of youths from the estates to the urban centres. The traditional supply of labour for the estates have always been the workers' children or dependents, who replace those that retire or leave. Now, with the urban migration of estate youths, this source of labour supply has become depleted. The migration of labour is related to the 'pull' and 'push' factors. As these factors will be discussed in more detail in a later chapter, only a brief account is given here.

Estate youths are attracted by the 'bright lights' of the cities. With the improvement of communications, the youths are exposed and more aware of developments in the cities. The outflow of labour is aggravated by the spread of education to the rural areas. This has changed the attitudes and values of the estate youths. It has not only increased the awareness of new opportunities, but also raised job expectations beyond estate level. The youths' changing aspirations are influenced by the attitude of their parents who see the returns to education in terms of modern sector jobs. They therefore encourage the children to leave their traditional background and find urban jobs.

It is difficult to argue, as will be seen in the next chapter, that low wages are the main factor behind the outflow of labour from the estates to the cities. First, a majority of the estate workers belong to the strongest union in the country, the National Union of Plantation Workers. Second, there is the opportunity for family employment on estates. Both the husband and wife normally work on the estate. In addition, estate workers enjoy fringe benefits such as free housing. Hence, the estate worker is better off financially than the unskilled urban employee. However, against this real earnings

have shown only little growth. Also, earnings have a tendency to be unstable as wages are pegged to the price of the commodity. The question of wages and the issues related to it will be discussed in greater detail in chapter four.

It is not so much a matter of relative earnings as status, prospects and life-style. Plantation work is losing its appeal to the younger generation. The activity carries with it a social stigma. The job is low in status as the work is historically associated with cheap exploitable labour. The manual and monotonous nature of the job offers little prospects for career advancement.

The conditions of living on the estates are poor. Infrastructure provided are unsatisfactory. Housing, although free, is for the most part antiquated. Basic amenities, such as piped water and electricity supply, are lacking on many estates. There is often no opportunity for the estate youth to take part in social activities or seek some form of entertainment after work.

There is not only a migration of labour to the urban centres, but also overseas. The high monetary rewards from casual and permanent jobs in Singapore and the Middle East have attracted labour from the estates to these countries. Builders in Singapore, for example, offer attractive remuneration, which include provident fund contributions, and proper accommodation at construction sites equipped with toilets and kitchen facilities.[5] The manufacturing industries offer high salaries and a variety of perks such as bonus, increments twice a year and free or subsidised accommodation. There are an estimated over 100,000 Malaysians working in Singapore. Data on emigration of labour to the Middle East are not available, but the numbers are felt to be substantial.

The Federal Land Development Authority (FELDA) schemes have also drawn labour away from the estates. These schemes offer

better long-term prospects and are thus more attractive than employment on the estates. The main objective of FELDA is to create prosperous farming communities with economically viable farms. The Authority undertakes the initial tasks of clearing the jungle, planting the crops and constructing the basic infrastructures of houses, roads and other amenities. Prospective settlers of the schemes must be landless rural persons with previous experience of agriculture. Estate workers, by virtue of their qualifications and background, thus receive first consideration when choosing settlers for the schemes.

The main crops grown on the schemes are rubber and oil palm. The participating settlers are each allotted a block of land which average about four hectares in size. Upon entry into the schemes, the holdings are still in the immature stage. The settlers are assured a subsistence allowance to tide them over until their holdings become productive. Each settler is expected to repay the Authority for the development costs incurred, which include that of maintaining the crop to maturity and erecting his home. This is met through regular deductions from the settler's income. The deductions however are flexible and subject to a minimum monthly income. The duration of the repayment period normally spans over 15 years, at the end of which, the settler is issued a title to his holding.

The management of the schemes are of a high technical standard and performance compares well with that on the best private estates.[6] The planted rubber and oil palm are not only high yielding, but also generally comprise the best clones available in the year of planting. Thus the yields obtained are excellent. The Authority also has its own modern processing and marketing facilities to ensure efficient production and fair prices for its settlers. It will be seen in the next chapter that earnings of settlers on these

schemes are higher than that of estate workers, in spite of deductions to pay off their loan obligations. Thus, it is not surprising that the estate worker finds participation in the schemes more attractive.

The Government's intention to attach priority to both massive industrialisation and substantial land development projects will continue to draw labour away from the already shrinking estate workforce. Under the Fourth Malaysia Plan (1980-1985), FELDA is expected to develop a total of 149,800 hectares, which would create schemes for 30,000 settlers. The manufacturing sector alone is estimated to create about 250,000 new jobs. Concurrently, the plantation industry itself is expanding and carrying out large replanting programmes which would require additional labour. Thus, the labour shortage in the estate sector can be expected to worsen in the 1980s.

3.3 Nature and Extent of the Shortage

Part of the controversy surrounding the labour shortage issue is due to the lack of data indicating the actual extent of the shortage. The population census, conducted once every decade and for which the data are not available for another two or three years, is far from sufficient. It may also be misleading as a basis for policy formulation. In a fast developing economy such as Malaysia, where significant changes, if not reversals, in population trends and labour market elements occur, more up-to-date data is essential. There is also a gap in knowledge on internal migration. The 1970 census is too outdated to yield information on labour flows among sectors and regions. In addition, the data are highly aggregative and thus do not capture regional or localised difficulties in recruiting labour. Therefore, to provide a better insight into the newly emerging

tightening of the labour market, the time interval and aggregative format of data need to be reviewed.

As the shortage of labour in the plantation industry caught the nation more or less unawares, data monitoring the magnitude of the situation are generally lacking. This section attempts to assess the nature and extent of the shortage, based on the findings of recent surveys carried out by various agencies. To simplify the purpose of identifying the areas of labour shortage, the states are classified into regions (Figure 3). The states of Perlis, Kedah, Penang, Perak, Selangor, Negri Sembilan and Malacca are classified as the West Coast region. The East Coast region include the states of Pahang, Trengganu and Kelantan. The state of Johor is classified as the Southern Region.

Although there were differences in the findings of the surveys conducted, there was some degree of consensus as regards the distribution of the shortage. The agencies concurred that the shortage of labour occurred mainly in the Southern and East Coast regions. It must be stressed at this juncture that the current labour shortage situation is localised rather than general. The shortage of labour in Johor is due to the pull of nearby urban jobs in Singapore, where higher monetary rewards can be earned from casual and permanent employment.

In the East Coast region, the shortage is particularly acute in Pahang. Estates face competition for labour from the land development schemes being opened up in the state. It has been pointed out that these schemes are more attractive as they offer better long-term prospects. The severity of the situation however is encroaching into the other states in the region. This is partly due to the migration of labour from the region to the urban centres and

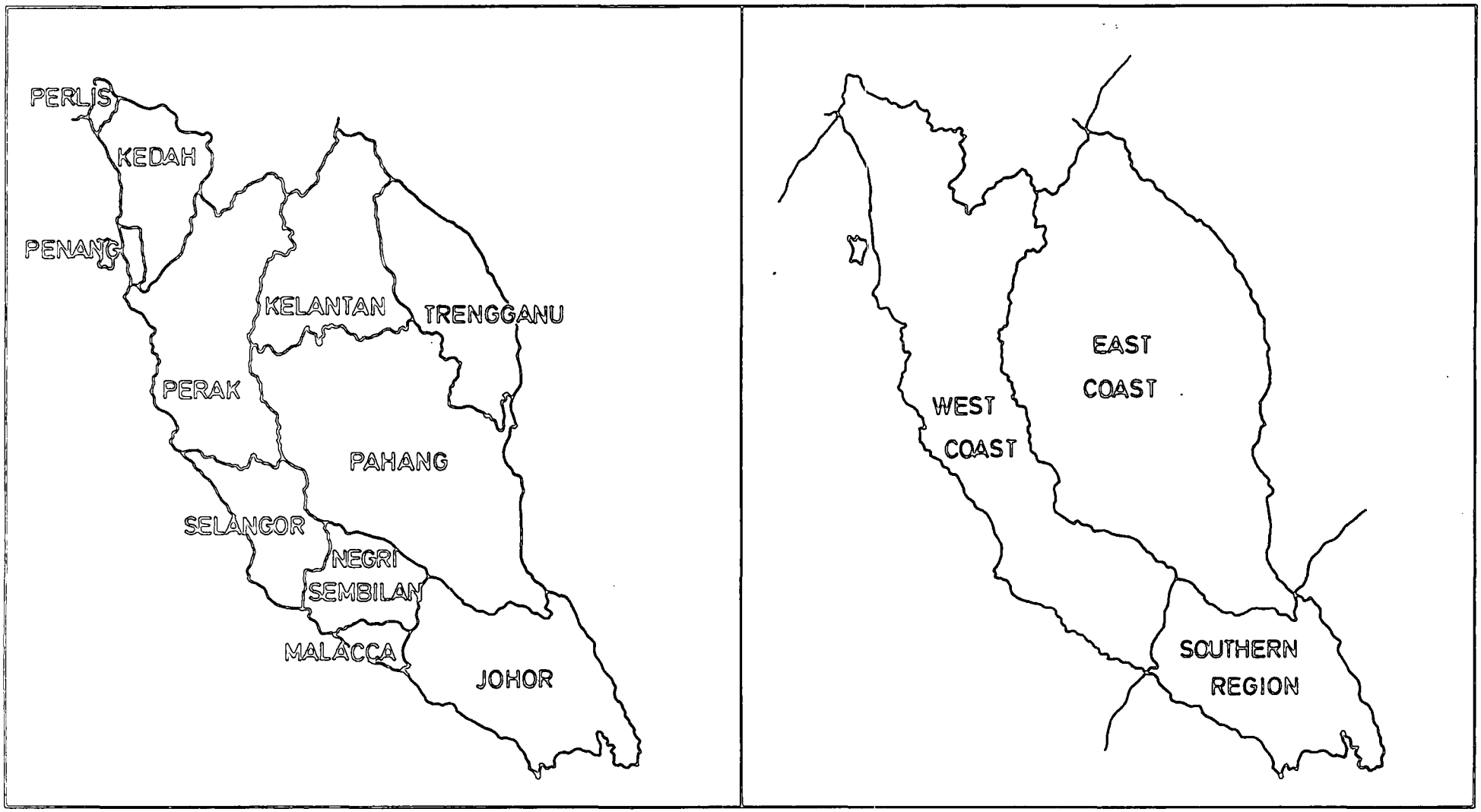

FIGURE 3 : PENINSULAR MALAYSIA

overseas. There are an estimated 40,000 to 60,000 Kelantanese workers in Singapore.

The shortage of labour in the East Coast region also reflects the problem encountered in recruiting an adequate workforce in newly opened and remote areas of the country. Furthermore, the payment of regional wage differentials to attract labour to these areas is not an alternative open to members of the Malayan Agricultural Producers Association (MAPA). Historically, the country's estates developed near the towns and cities. However, as urban areas expanded, many of the estates have had to make way for housing, industrial or commercial zones. New estate developments have therefore moved away from the towns to the more remote areas of the country.

Various agencies have conducted surveys on the labour shortage situation. These include the United Planting Association of Malaysia, the Rubber Research Institute of Malaysia and the Ministry of Labour and Manpower. The findings of these agencies are examined in turn. Until now, the United Planting Association of Malaysia (UPAM) has conducted three surveys to assess the labour shortage situation on member estates. The Association's membership comprise of companies, partnerships and proprietors. Although there is a considerable number of local estates, the Association is essentially dominated by European interests. As the average size of the estates within membership of the Association is above the national average of 486 hectares, the findings of the surveys are more representative of the situation on the larger estates.

Table 3.1: Labour Shortage Situation on Member Estates of the United Planting Association of Malaysia (UPAM)

UPAM Survey	1979	1980	1981
Number of estates facing labour shortage	95	211	225
Number of estates covered in survey	300	407	430
Percentage of estates facing labour shortage	32%	52%	52%
Total shortfall of labour	3,295	8,655	9,633
Deficit between labour supply and demand(%)	3.50%	6.02%	6.69%

The findings of the UPAM surveys are shown in the table above. The fact that clearly emerges from the successive rounds of the UPAM surveys is that the labour shortage situation on member estates deteriorated over time. The gap in total shortfall of labour widened. In 1979, the deficit was 3.5 per cent. This rose to 6.0 per cent the following year. In 1981, it increased further to 6.7 per cent.

The less sharp rise in labour shortfall in 1981 could be partly due to the low commodity prices as a result of the world economic recession. The domestic price of palm oil dropped to $1,100 per tonne in 1981 from $1,146 per tonne in 1980. Similarly, the price of rubber on the home market fell from $312.4 per kilogram in 1980 to $257.8 per kilogram in 1981. The low crop price levels could have led to temporary cutbacks in labour usage in terms of reduced levels of upkeep and withdrawal of marginally profitable fields from operation. It is also possible that the continued shortage of tappers could have encouraged estates to review tapping intensity and frequency, resulting in a slight fall in the demand for this category of labour.

Also, it has been the traditional pattern in the rubber industry for smallholders to move to the estates during periods of low commodity prices, and vice versa.[7] Although wages in the plantation sector are pegged to the price of the commodity, earnings on estates are relatively higher than that on smallholdings in times of depressed commodity prices. The reason for this is the crop sharing system on smallholdings between the inactive landlord and the tenant. Under such a system, the tenant normally takes half of the latex and all the scrap for himself.[8] However, during periods of low rubber prices, the latter may not find this arrangement profitable and leaves

the smallholding to work on the estate where he would be able to earn more.

The UPAM survey[9] in 1981 revealed a slight increase in the employment of contract labour on member estates. The share of contract labour in the total workforce increased from 19.9 per cent in 1980 to 20.8 per cent in 1981. This could indicate that the estates resorted to the hiring of contract workers to overcome the labour shortage. The member estates of UPAM are bound by the MAPA-NUPW agreements and are thus unable to offer higher wages to attract labour to the areas of shortage. By hiring contract labour, the estates would be able to circumvent the regulations imposed on them by the wage agreements.

Table 3.2 shows the extent of labour shortage on UPAM estates in 1981. The seriously affected states were Johor, Pahang and Negri Sembilan. Together, these states accounted for 63 per cent of the total shortfall of labour recorded. About 57 per cent of the total number of estates reporting labour shortage fell in these states. The situation was particularly acute in Johor, with more than one-quarter of the total labour shortfall in this state alone. The labour shortfall in the East Coast region was also generally serious. There was no general shortage of labour in the West Coast region. However, there were pockets of labour shortage within the region, particularly in Negri Sembilan, Perak and Selangor.

Table 3.2: Labour Shortage Situation on Member Estates of the United Planting Association of Malaysia, 1981

Region	Number of estates in survey	Number of estates reporting shortfall	Number of vacancies	Percentage of total vacancies (%)
Southern Region				
Johor	98	60	2,835	29.4
East Coast Region				
Pahang	36	31	1,765	18.3
Trengganu	9	8	920	9.5
Kelantan	15	7	526	5.5
West Coast Region				
Negri Sembilan	53	37	1,489	15.5
Perak	78	34	978	10.1
Selangor	80	34	854	8.9
Kedah	37	6	131	1.4
Malacca	17	7	131	1.4
Penang	7	1	4	negligible
Perlis	-	-	-	-
Total	430	225	9,633	100.0

The Rubber Research Institute of Malaysia (RRIM)[10] conducted a random survey of rubber estates in 1980 to examine the extent of labour shortage in the sector. The findings of the survey are shown in Table 3.3. The estates studied were classified into regions, similar to that adopted in this chapter for the purpose of identifying the areas of shortage. Of the total number of rubber estates investigated, 43 per cent indicated they were experiencing labour shortage. The overall additional labour required was 4.4 per cent of the total employed on the estates investigated. The deficit was consistent with the UPAM findings. The labour shortage was most serious in the East Coast region. The shortfall was also acute in the Southern region.

Table 3.3: Labour Shortage Situation on Rubber Estates Investigated by the Rubber Research Institute of Malaysia

Region	Number of estates studied	Number of estates indicating shortage	Deficit between labour supply and demand (%)
West Coast	42	13	1.9
East Coast	12	9	8.2
Southern	20	10	6.8
All	74	32	4.4

A survey carried out by the Ministry of Labour and Manpower[11] in 1980 reported a higher percentage of labour shortfall on the rubber and oil palm estates studied. The findings of the survey showed that 23 out of the 31 estates investigated, or 74 per cent, faced labour shortage. The total shortfall of labour was 23.4 per cent of the workforce on the estates investigated. The deficit was higher than both the findings of the RRIM and UPAM. This can be attributed to the different sampling procedure adopted by the Ministry. The samples in their survey were selected from estates which were reported as experiencing labour shortage in the Labour Department records. Thus the shortfall of labour can be expected to be higher. The survey indicated that labour shortage occurred mainly in the East Coast and Southern regions. The situation was particularly acute in the East Coast state of Trengganu. Of the West Coast states, only Negri Sembilan showed a significant shortfall of labour.

Table 3.4: Labour Shortage Situation on Rubber and Oil Palm Estates Surveyed by the Ministry of Labour and Manpower

Region	Number of estates in survey	Number of estates reporting shortfall	Number of vacancies	Percentage of total vacancies (%)
Southern Region				
Johor	10	6	360	16.2
East Coast Region				
Pahang	6	6	337	15.1
Trengganu	4	3	1,085	48.8
Kelantan	3	2	240	10.8
West Coast Region				
Negri Sembilan	4	4	112	5.0
Perak	-	-	-	-
Selangor	2	1	32	1.4
Kedah & Perlis	-	-	-	-
Malacca	2	1	60	2.7
Penang	-	-	-	-
Total	31	23	2,226	100.0

The shortage of labour comprise mainly of tappers, harvesters and weeders. The shortage is more acute in respect of harvesters. This could be due to the more strenuous task involved in the harvesting of ripe fruit bunches, especially of the tall palms, which does not render the job appealing. Furthermore, there is the tedious task of manually collecting the loose fruits which scatter as the bunches hit the ground with considerable impact.

Table 3.5: Labour Turnover on Member Estates of the United Planting Association of Malaysia[12]

Category of Labour	Number employed on the estates		Number who left the estates		Turnover (Percentage)	
	1980	1981	1980	1981	1980	1981
Oil Palm Harvesters	10,721	11,549	4,117	5,224	38.4	45.2
Rubber Tappers	55,407	54,911	6,958	7,684	12.5	14.0
Weeders	38,011	37,234	10,400	12,417	27.4	33.4
All	104,139	103,694	21,475	25,325	20.6	24.4

The relatively acute shortage of harvesters is reflected in the high turnover rate of this category of labour in the UPAM surveys. Turnover was defined as the number of workers who left the estates out of the total employed. The findings of the surveys revealed that harvesters were the most volatile group as can be seen in Table 3.5. The turnover rate of harvesters in 1980 was 38.4 per cent. This rose to 45.2 per cent in 1981.

The turnover rate of tappers was relatively low. This could be due to the fact that tappers are mostly women and therefore tend to be less mobile. The overall rate of turnover was high at 20.6 per cent in 1980 and deteriorated further to 24.4 per cent in 1981, which could reflect a worsening of the labour shortage situation.

Table 3.6: Labour Outturn on Member Estates of the United Planting Association of Malaysia[13]

Category of Labour	Number of man-days offered		Number of man-days actually completed		Average Outturn (Percentage)	
	1980	1981	1980	1981	1980	1981
Oil Palm Harvesters	3,769,131	2,771,865	3,139,009	2,329,276	83.3	84.0
Rubber Tappers	15,702,503	14,037,179	14,084,693	13,089,635	89.7	93.3
All	19,471,634	16,809,044	17,223,702	15,418,911	88.5	91.7

The UPAM surveys also examined outturn of labour on member estates. Outturn was defined as the number of days actually completed out of the total upon which work was offered. The average outturn of labour in 1981 was 91.7 per cent. This implies a lack of incentive to complete the total number of days of work offered.

Such a situation could be due to unsatisfactory wages. On the other hand, it could be an indication that wages are already high and serve as a disincentive to work longer than deemed sufficient. Outturn was lower among harvesters than tappers as can be seen in Table 3.6. Again, this could be due to the more physically arduous task involved in the harvesting of fruit bunches.

The shortage of labour has resulted in trees not being tapped and fruit bunches left to rot on estates. Indeed, planters have expressed concern over crop loss. The UPAM survey in 1980 estimated a total crop loss of 169,246 tonnes of fresh fruit bunches and 7,092 tonnes of rubber on member estates. This increased to 246,236 tonnes and 10,978 tonnes respectively the following year. The total value of crop loss in 1981, based on average prices for the year, was $75 million. The value lost would have been much higher had it not been for the sharp fall in the price of rubber experienced during the year from $3.12 per kilogram in 1980 to $2.58 per kilogram in 1981.

The labour shortage in the plantation industry is not as yet critical but the situation can be expected to deteriorate in the future. The shortage will be particularly acute in the case of harvesters and, to a lesser extent, tappers. The relatively acute shortage of harvesters is anticipated in the face of continued expansion of the oil palm industry. In addition, as mentioned in the previous chapter, the industry is on the verge of a breakthrough in research on tissue-culture propagation of oil palm. If successful, the higher production per unit area of land will increase the labour requirements on the estates.

On the other hand, the demand for tappers can be expected to taper off gradually with the continued trend of rubber estates

switching to the planting of oil palm. The shortage of tappers will thus not be as acute as that of harvesters. As field maintenance operations can be mechanised, the shortage of weeders can be expected to be overcome.

The projected increase in labour shortage in the estate sector can also be assessed in the context of the long-term population and labour force trends in the country.[14] The lower population growth rate of 2.7 per cent per annum between 1971 and 1978, compared with 3.0 per cent per annum during the sixties, will be felt in the late eighties. Furthermore, labour force growth is estimated at a rate of 2.9 per cent per annum between 1980 and 1990, while employment opportunities are expected to grow at 3.1 per cent per annum during this period. Thus the demand for labour in the economy as a whole will exceed the supply available. Against this background, the estates will face stiff competition for their labour needs. Bearing in mind the prejudice against estate work, the labour shortage in the plantation industry will become increasingly critical in the coming years.

The shortage of labour in the plantation industry warrants concern as it poses a threat to the country's economy. Rubber and oil palm contribute about 16 per cent of the nation's Gross Domestic Product. Also, the country's premier position in the production of these crops is jeopardized. It is thus imperative that measures be taken to deal with the labour shortage situation. However, before this can be done, the causes of the shortages have first to be identified. The following two chapters will examine the factors which may account for the shortage of labour in the plantation industry.

Notes:

1. 'Current Labour Situation in the Planting Industry in Peninsular Malaysia-A Panel Discussion', ed., Proceedings of the Rubber Research Institute of Malaysia Planters' Conference 1981 (1982), p.416.

2. James Nayagam and Abdullah Sepien, Labour Situations in Rubber Estates and Smallholdings (1981), p.29.

3. United Planting Association of Malaysia, Short Report on a Survey on Estate Labour Shortage (1980), p.6.

4. Nayagam and Sepien, op.cit., pp.26-29.

5. 'Johor Oil Palm Estates Hit by Labour Crisis', New Straits Times, 24 April 1980.

6. Colin Barlow, The Natural Rubber Industry: Its Development, Technology and Economy in Malaysia (1978), pp.235-236.

7. United Planting Association of Malaysia, Third Report on a Survey on Estate Labour Shortage (1982), pp.5-6.

8. Barlow, op.cit., p.360.

9. United Planting Association of Malaysia, Third Report on Estate Labour Shortage, p.3.

10. Nayagam and Sepien, op.cit.,pp.15-17.

11. Department of Manpower, Study of Labour Shortage on Rubber and Oil Palm Estates (1981), pp.27-29.

12. United Planting Association of Malaysia, Second Report on a Survey on Estate Labour Shortage (1981), p.25 and Third Report on Estate Labour Shortage, p.27.

13. United Planting Association of Malaysia, Second Report on Estate Labour Shortage, p.23 and Third Report on Estate Labour Shortage, p.23.

14. Lim Lin Lean, 'Labour Shortages in the Rural Agricultural Sector - A Search for Explainations and Solutions' (University of Malaya Discussion Paper, 1981).

4. WAGES

Wages have been the subject of much dispute in the labour shortage issue. The National Union of Plantation Workers claim that low wages are the main reason behind the shortage of labour in the estate sector. The industry on the other hand assert that wages are already high and compare favourably with certain urban jobs. Rather, it attributes the shortage of labour to the attraction of the 'bright lights' of the cities. This chapter attempts to argue that low earnings are not the main reason behind the exodus of youths from the estates to the urban centres. It is not so much a matter of relative earnings as status, prospects and life-style.

The chapter is divided into three sections. Collective bargaining is an important aspect of wage determination in the estate sector. The first section gives a brief profile of the negotiating parties. The second section looks at the wage agreements. The wage structure will be analysed to identify the factors which may explain the shortage of labour in the plantation industry. Discussion is confined to wage agreements covering tappers and harvesters. The final section is concerned with earning trends and differentials. Have earnings of estate workers increased over time? When taking into account the cost of living, do earnings show any real improvements? How do earnings on the estates fare when compared with other sectors of the economy?

4.1 The Negotiating Parties

Wages in the plantation industry are influenced by the collective agreements concluded between the Malayan Agricultural Producers Association (MAPA) and the National Union of Plantation Workers (NUPW). The agreements are not implemented by all the estates. Non-MAPA estates pay lower wages on the average.

However, these differences are not reflected in the official statistics published. Discussion of the wage issue is largely confined to the collective agreements concluded between the two aforesaid organisations. This is on the grounds that MAPA estates set the pattern of wages in the industry. A brief profile of the negotiating parties is presented in this section.[1]

The NUPW is not only the largest union in the agricultural sector, but also, financially, the strongest in the country. As at the end of 1979, total membership of the union stood at 109,531. Its assets were valued at $6 million. The union is well organised with full-time paid clerical and qualified staff employed to carry out its activities. Courses are organised by the union for its officials at both the headquarters and local levels, and some are sent overseas for training. The union also has branch offices in different parts of the country to deal specifically with problems at the regional level.

The NUPW was formed in 1954 as a result of an amalgamation of the large trade unions in the industry. Prior to this, the unions negotiated wages separately. The merger was with the intention of strengthening the bargaining position of the estate workers. A few unions continued to exist independently and resisted the new organisation's growth, but one by one were absorbed by the NUPW or wound up. In spite of initial internal difficulties, the organisation grew. It drew progressively more of the estate labour force into its membership.

The union was initially a bargaining agency on behalf of the Indian labour force. This was partly because the union had its origins under Indian leadership. Also, the majority of the workforce on the estates were then Indians. Although still predominantly Indian, the union's membership is now more diversified and includes many Malay and Chinese estate workers. By the early 1970s, the

NUPW could claim major responsibility for great improvements in the lives of the Malaysian plantation workers.

The union's activities are not confined to wage bargaining alone, but spread over a wide field to serve the interests of its members and their families. It is very much concerned with the education of its members' children. Scholarships have been awarded by the union to deserving cases in primary and secondary schools in Malaysia. This aid has also been extended to those able to further their education in colleges or universities at home and overseas. In addition, the union has built hostel facilities to provide subsidised board and accommodation for its members' children to further their education in the better schools in the towns.

The union has also launched two enterprises. The first of these was the Great Aloniers Trading Corporation. This was established to initiate the ownership of estates by the plantation workers themselves. The second enterprise, the Multi-Purpose Cooperative Society, was set up to encourage participation in investment opportunities among its members and their families. Other ranges of activities undertaken by the union include the sponsorship of consultative committees between management and workers on estates, the provision of legal advice, and the organisation of extramural activities for the old and young.

The employers' counterpart of the National Union of Plantation Workers is the Malayan Agricultural Producers Association. Initially, there was no employers' organisation in the industry established specifically for the purpose of wage bargaining. The United Planting Association of Malaya then provided the forum for informal discussion on wages. However, immediately after the Second World War, there emerged a sudden proliferation of estate workers' unions. As a result, the United Planting Association of Malaya found that it was

not able to put up a strong front for the employers against the unions.

To remedy the situation, the United Planting Association of Malaya initiated moves to formalise an employers' organisation for the purpose of bargaining with the unions. The Malayan Planting Industries Employers' Association (MPIEA) was formed in October of 1947. The MPIEA was mainly European dominated with very few local members. This reflected foreign dominance of estate ownership during the period. The MPIEA grew steadily and ably represented its members vis-a-vis the unions.

A turnabout of events began to take place in 1957. With the attainment of independence and the nationalistic feelings that ensued, expatriate domination in the country's economy was resented. This posed a weakness to the MPIEA in its negotiations with the then already formed NUPW and wages rose as a result. In addition, the prices of rubber were also falling during this period, though there were exceptional years. Dissension grew among member estates as to the extent to which the MPIEA ought to make concessions to the NUPW. This created unrest within the MPIEA. Its membership declined, gradually at first, but very strikingly in 1966. This was a result of a sharp drop in the foreign share of estate ownership in that year. The decline in overseas dominance of estate ownership was described in chapter two.

By the end of 1966, the MPIEA was not able to present a united front for employers in wage negotiations with the NUPW, and ceased to be effective in its role. This posed a threat to the continuation of collective bargaining in the industry. To guard their self-interests, and partly at the behest of the Government, the employers were reorganised into the present Malayan Agricultural Producers Association (MAPA) in November of 1967. By the 1970s,

it represented almost all expatriate-owned plantations, and a major proportion of the local medium and large sized estates.

The activities of the association are not as varied as those of the union. They are confined mainly to industrial relations issues. These include wage negotiations with the union and assistance to its members in the implementation of collective agreements. It also settles grievances arising out of these agreements or from other sources. In addition, the association represents its members in disputes arising from the implementation of any labour legislation currently in force. The association is also a member of the National Joint Labour Advisory Council and participates in discussing labour legislation.

4.2 Wage Structure

This section is primarily concerned with the wage structure. It attempts to pinpoint the factors which might account for the labour shortage in the estate sector. The wage agreements concluded in the rubber and oil palm industry are examined respectively. In the rubber industry, the signing of the 1959 wage agreement brought about an entirely new scheme with regard to fixing wages for tappers. This formed the basic format for future wage agreements. In this agreement, wages were derived from two main sources, namely, the guaranteed factor and the output element.

The guaranteed factor comprised a basic element and a price element. The basic element was $2.00 a day for the monthly average price of rubber of between 50 cents and 60 cents a pound. The rate was increased to $2.20 a day when the price of rubber was above 60 cents a pound. The price element was 14 cents a day for every 10 cents by which the monthly average price of rubber exceeded 60

cents a pound. Thus, a major point that can be noted from the agreement is that wages were closely pegged to the price of rubber.

The output factor in turn was made up of a latex element and a scrap element. The latex element entailed payment for each pound of rubber brought in by the tapper in excess of a minimum poundage for a given category of field. For this purpose, fields in an estate were classified into three main categories (A, B, C) according to the year of planting of the trees, the materials planted, and the average yields per acre per annum. The minimum poundage for A, B and C fields were 15, 11 and 16 pounds respectively. The corresponding rates per pound for the excess poundage were 6, 8 and 10 cents.

A lower rate per pound and a higher minimum poundage were set for budded or clonal areas, where productivity in these fields was high. The converse applied to low productivity fields. A higher rate per pound was combined with a lower minimum poundage for old seedling rubber areas. This had the effect of mitigating the unduly advantageous position of tappers allocated tasks in the high-yielding areas over those in the low-yielding fields. The wage structure was thus designed to prevent varying productivities between fields from causing unequitable earning possibilities. The scrap element was fixed at 4 cents for every pound of scrap brought in by the tapper.

The 1959 wage agreement brought about significant gains for the tappers. It ensured that a minimum wage was earned which was relatively free of rubber price fluctuations. The introduction of the latex element enabled tappers to share in gains accrued from increased productivity on the estates. The latter also acted as an incentive for the tapper to increase his output as he stands to earn additional income from the excess poundage brought in. The price element on the other hand made it possible for the tapper to share in any increased prosperity that resulted from a rise in the price of

rubber. Thus, apart from a minimum wage, there was scope for additional earnings based on price and output changes.

The 1959 agreement was subsequently revised in 1962 and again in 1964. The tappers benefitted significantly from the agreements. In the 1962 wage agreement, the basic element increased to $2.25 a day. The price element was raised to 15 cents a day for every 10 cents increase in the price of rubber above 60 cents. As for the latex element, the rates per pound remained the same. However, the minimum poundages were reduced to 14, 9 and 5 pounds respectively for A, B and C fields. The scrap element remained unchanged.

There was only one minor change in the 1964 wage agreement. The price element was now a separate item and termed the price bonus. The guaranteed factor referred to only the basic element. The latter was increased to $2.55 a day. The price bonus now varied with every one cent change in the price of rubber. This was fixed at 2 cents per day for each whole cent by which the price of rubber exceeded 70 cents a pound. The minimum poundage was reduced by one pound for B and C fields, while that of A fields remained the same. The rate paid for excess poundage on the other hand increased to 8, 10, 12 cents a pound for A, B, C fields respectively. The scrap element continued to remain unchanged at 4 cents a pound.

The 1964 wage agreement remained in operation until 1968. By then, the Malayan Planting Industries Employers' Association was formally dissolved and reorganised as the Malayan Agricultural Producers Association. The 1968 wage agreement was brought about by the exceptionally low prices of rubber in 1967. The basic wage in the agreement rose substantially to $3.10 per day as a result. The price bonus was now 5 cents a day for every 5 cents fluctuation in the price of rubber above 50 cents. This represented a decline over

the amount that could be earned in the previous agreement, whereby the bonus increased with every one cent change in the price of rubber. The scrap element was fixed at 4 cents per pound for the first four pounds, increasing to 5 cents per pound thereafter.

Two changes were incorporated into the 1968 wage agreement. First, the output factor was now termed the incentive bonus. Second, the fields were reclassified into low-yielding and high-yielding areas. A basic poundage was specified for each class of field. This was stipulated at 16 pounds and 22 pounds for low-yielding and high-yielding fields respectively. The tapper was paid an incentive bonus for excess poundage brought in. For low-yielding fields, the incentive bonus was 6 cents per pound for the price of rubber of between 40 cents and 45 cents a pound. The rate was 4 cents per pound in the similar price zone for high-yielding fields. For both category of fields, the rate increased by 1 cent for every 5 cents fluctuation in the price of rubber above 45 cents. On the whole, the 1968 agreement increased the basic element and the scrap element, but reduced the amount that could be earned from the other wage components. Thus, the net effect could have been a decrease in the earning levels compared with the previous wage agreement.

The 1968 wage agreement was replaced four years later in 1972. A summary of the 1972 wage agreement is represented in Table 4.1. The basic wage in the agreement rose by only 10 cents to $3.20 per day. The price bonus increased by 10 cents for every 5 cents fluctuation in the price of rubber above 70 cents. For the price zones below this, the rates were similar to the 1968 wage agreement. The incentive bonus differed only slightly. The rates paid for excess poundage brought in remained unchanged for both the low-yielding and high-yielding fields. However, the basic poundage was reduced to 15 pounds and 21 pounds respectively. There was a change in the

method of payment of the scrap element. The rate per pound paid for scrap was now pegged to the price of rubber. Overall, the 1972 wage agreement presented only slight gains to the tappers in the amount that could be earned from the wage components.

Two more wage agreements were concluded in the 1970s. These were signed in 1976 and 1979 respectively. At the time that this study was undertaken, the 1979 wage agreement was still in effect. The rates of payment reached in the wage agreements concluded in the 1970s are compared. Details of the agreements are arranged in tabulated form to facilitate easy comparison. Referring to Table 4.1, there appears to be, at a glance, an overall upward revision in the rates of payment over the period.

The basic wage increased significantly to $4.30 per day. The upper limit of the price zone shifted forward with each successive wage agreement. The maximum incentive bonus paid for excess poundage brought in by the tapper increased over the period to 15 cents a pound and 17 cents a pound for the high-yielding and low-yielding fields respectively. Similarly, the minimum rate per pound also increased to 10 cents and 12 cents for the respective classification of fields. The basic poundage remained unchanged throughout the agreements.

The maximum amount that could be earned from the price bonus doubled to $1.20 per day over the period. At the other end of the spectrum, the minimum price bonus increased to 20 cents a day. The price bonus stipulated in the 1976 wage agreement represented a significant gain. Compared with the 1972 wage agreement, there was an appreciable increase in the rates at the upper scale of the price zone. There were also gains in the scrap element, though this was only minimal.

Table 4.1: Comparison of Wage Agreements Concluded in the 1970s Covering Rubber Tappers

Wage Components	Price Zone (cents/pound)													
	35/40	40/45	45/50	50/55	55/60	60/65	65/70	70/75	75/80	80/85	85/90	90/100	100/110	110/120
Basic Wage														
1972	310	320	320	320	320	320	320	320	320	320	320	–	–	–
1976	–	–	–	360	360	360	360	360	360	360	360	360	360	–
1979	–	–	–	–	–	430	430	430	430	430	430	430	430	430
Price Bonus														
1972	–	–	–	5	10	15	20	30	40	50	60	–	–	–
1976	–	–	–	–	10	10	20	20	40	40	60	80	100	–
1979	–	–	–	–	–	–	20	20	40	40	60	80	100	120
Incentive Bonus														
H/Y:														
1972	4	5	6	7	8	9	10	11	12	13	14	–	–	–
1976	–	–	–	7	8	9	10	11	12	13	14	14	14	–
1979	–	–	–	–	–	–	10	11	12	13	14	14	14	15
L/Y:														
1972	6	7	8	9	10	11	12	13	14	15	16	–	–	–
1976	–	–	–	–	10	11	12	13	14	15	16	16	16	–
1979	–	–	–	–	–	–	12	13	14	15	16	16	16	17
Basic Poundage														
H/Y (1972,1976, 1979)	21	21	21	21	21	21	21	21	21	21	21	21	21	21
L/Y (1972,1976, 1979)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Scrap Element														
1972	3	3	3	3	4	4	5	5	6	6	7	–	–	–
1976	–	–	–	3	4	5	5	5	6	7	7	7	7	–
1979	–	–	–	–	–	–	5	6	6	7	7	7	7	7

The foregoing analysis thus indicate that the estate workers benefitted on the whole from the wage agreements. But what were these gains worth in real terms? The Consumer Price Index (1967=100) during the period concerned rose markedly from 101.3 in 1970 to 179.5 in 1980. It is not intended to dwell on the issue of real earnings here as this will be discussed in more detail at a later stage in the chapter.

Although the oil palm industry has been unionised for a long time, there was no national wage agreement comparable to the workers in the rubber estate sector until 1974. This was due to the reluctance on the part of the National Union of Plantation Workers to conclude a national wage agreement. It was of the opinion that such an agreement was not possible due to the varied systems of payment then existing in the industry. Such a situation arose from the different stages of development of the oil palm industry in the country. In the southern state, for example, where the plantations were more established, the yields were higher. Harvesters in this region thus earned more.

The industry on the other hand was in favour of the implementation of a national wage agreement and endeavoured to reach a consensus with the union on the matter. A sub-committee was set up by the Malayan Agricultural Producers Association in the early seventies to study the matter in detail and proposals drawn up were submitted to the union for its consideration. Following long and difficult negotiations, the first national wage agreement covering harvesters was concluded in March of 1974.

As as result of the agreement, employers in the central and northern states of Peninsular Malaysia had to increase wages considerably so as to bring about uniformity of payment within the industry. In the southern state, immediate uniformity was not

possible. This was overcome by a clause incorporated which allowed estates paying rates higher than that stipulated in the agreement to continue to do so. There is now, generally, uniformity of payment within member estates of the Malayan Agricultural Producers Association.

Harvesting of fresh fruit bunches comprise of a two-person team, involving a cutter and a carrier. First, the former cuts all the ripe fruit bunches within an allotted area. The latter then carries the cut bunches, together with all the loose fruits to prescribed collection points and deposits them into containers. Under the wage agreement, payment was made on the basis of every 100 pounds of fresh fruit bunches brought in by the cutter and carrier team, linked to the price of palm oil and acreage yield bracket. For example, in Table 4.2, within the harvested yield bracket of 7-8 tons per acre per annum, the team would be paid 38 cents for every 100 pounds of fruit brought in for the price zone of $1,000-$1,099 per ton.

Payment was based either on the total weight of fruit, or by rate per bunch. The choice of method of payment was left to the discretion of the management. In the first method, the ripe bunches and loose fruits harvested were weighed. On the other hand, in the alternative method, the number of fruit bunches brought in were instead multiplied by the average bunch weight for the harvested area concerned. Payment was then calculated at a rate per 100 pounds according to the appropriate price zone and yield bracket area.

Daily earnings of the team were not allowed to fall below a minimum level. Termed as the gang minimum average earnings, this was fixed at $8.25 per day for the basic price zone of $400-$499. The minimum earnings rose by 50 cents for each $100 increase in the price zone above $400-$499, up to and including $1,100-$1,199. The

division of earnings between the cutter and carrier team was agreed at the individual estate level.

The 1974 wage agreement expired in December 1976. Proposals for a new agreement were submitted by the union. Protracted and difficult negotiations followed. An agreement was only reached in August of 1977. As can be seen in Table 4.3, the rates represented an increase over the previous wage agreement. The gang minimum average earnings was increased to $9.50 per day for the price zone of $400-$499. For each $100 increase in the price zone thereafter, the gang minimum earnings rose by 55 cents and 60 cents alternately, up to a maximum of $13.50 per day for the price zone of $1100-$1199.

A new concept of minimum earnings during trough in the yield periods was introduced in the 1977 wage agreement. The trough in yields occur two months each year. Minimum earnings for an individual harvester during this period was fixed at $4.00 per day for the price zone of $400-$499. This rose by 20 cents for every $100 increase in the price zone thereafter. The exception was the $900-$999 price zone, whereby the minimum earnings increased by 40 cents. The agreement remained in force for a period of 4 years, expiring in July of 1981. Negotiations for a new wage agreement are presently in the final stages of conclusion.

It has become common practice for estate workers to receive special relief allowance (SRA) since 1973. This was a result of an abnormal increase in the cost of living in that year. The Government awarded a special relief allowance to its employees in the lower wage group, and this sparked off a chain reaction in the estate sector. The union submitted a similar claim to the industry. Initially, this was rejected. However, threatened with industrial actions of various forms, the industry conceded to the union's demands.

Table 4.2: 1974 Wage Agreement Covering Harvesters

Yield Bracket (Tons per acre per annum)	Basic Zone	Price Zones in $ Per Ton						
	$400-$499	$500-$599	$600-$699	$700-$799	$800-$899	$900-$999	$1000-$1099	$1100-$1199
3-4	44	45	47	50	52	54	57	60
4-5	34	35	37	41	43	45	48	51
5-6	28	29	31	34	36	38	41	44
6-7	26	27	29	32	34	36	39	42
7-8	25	26	28	31	33	35	38	41
8-9	24	25	27	30	32	34	37	40
9-10	22	23	25	28	30	32	35	38
10-11	21	22	24	27	29	31	34	37
11-12	20	21	23	26	28	30	33	36
12-13	20	21	23	26	28	30	33	36
13+	19	20	22	25	27	29	32	35

Table 4.3: 1977 Wage Agreement Covering Harvesters

Yield Bracket (Tons per acre per annum)	Price Zones in $ Per Ton							
	$400-$499	$500-$599	$600-$699	$700-$799	$800-$899	$900-$999	$1000-$1099	$1100-$1199
0-1	72	73	75	79	81	84	88	90
1-2	64	65	67	72	74	76	80	83
2-3	57	58	61	65	67	69	73	76
3-4	51	52	54	58	60	62	66	69
4-5	39	40	43	47	49	52	55	59
5-6	32	33	36	39	41	44	47	51
6-7	30	31	33	37	39	41	45	48
7-8	29	30	32	36	38	40	44	47
8-9	28	29	31	35	37	39	43	46
9-10	25	26	29	32	35	37	40	44
10-11	24	25	28	31	33	36	39	43
11-12	23	24	26	30	32	35	38	41
12-13	23	24	26	30	32	35	38	41
13+	22	23	25	29	31	33	37	40

The payment of SRA is non-mandatory. However, MAPA has recommended to member estates that such payment be made, in line with the practice in the public sector. The rates paid are based on the estate worker's monthly earnings.[2] Estate workers earning less than $300 a month are paid a SRA of $1.15 per day. The rate is reduced to 75 cents a day for those whose monthly earnings exceed $300.

There is thus no doubt that the NUPW has been instrumental in raising the wage levels of the estate workers. It will be seen in the following section that average monthly earnings of estate workers have increased in general over time. The efforts of the union, whilst undoubtedly beneficial to its members, may have also reduced the employment of potential workers in the industry. There are evidences to denote that this could have actually occurred.[3] One indication is the increased land-labour ratio on estates. Indeed, the average planted hectares per worker on rubber estates rose from 2.8 in 1960 to 3.1 in 1973. For estates of 405 hectares and above, where the wage agreements were most effectively applied, the average land-labour ratio in 1973 was 1:3.4. On the other hand, the estate population over the period grew slightly. Thus the proportion of employed persons on the estates declined.

On a sample of rubber estates investigated by Nijhar (1971), the population of Indians increased by 3 per cent between 1961 and 1967. However, the proportion employed on the estates dropped from 41 per cent to 31 per cent during the same period. Also, whilst many persons were actively seeking employment on these estates, the managements wished to reduce the number of workers further. Labour inputs were curtailed by reducing the intensity of tapping and increasing the task size of the individual tapper. Against all this, economic analysis shows that a lower wage rate could, with planting

material of a given capacity, stimulate a higher employment per hectare and total returns to labour. At the same time, it would also provide at least as high a return to management.

The lower employment of potential workers arising from the union's efforts of seeking higher wages for its members can be illustrated in the following diagrams. Figure 4.1 depicts employment in the industry as a whole. S_oS_o relates the supply of labour to its price. D_oD_o is the labour demand curve. In a free market situation, wage levels in the industry are determined by the interaction of the forces of supply and demand. The wage rate and optimum level of employment in this case would be OW_o and OQ_o respectively.

The wage rate is now fixed by collective bargaining. This would be partly ascertained by the bargaining strength of the union. The power of a trade union depends on a number of factors, including the size of its membership, the amount of its 'fighting' fund and the extent of damage to the national economy it can cause by a strike.[4] As mentioned earlier in the chapter, the NUPW is the largest union in the agricultural sector and financially the strongest in the country. Rubber and oil palm account for about 16 per cent of the country's Gross Domestic Product. Therefore, any industrial action taken by the union will have a serious repercussion on the country's economy.

The NUPW can thus be considered a powerful trade union to reckon with. However, market forces play an important part in setting a limit to the extent of wage increases demand by the union. The estate industry is labour-intensive. Labour accounts for about two-thirds of the total production costs. The wage element therefore has a decisive influence on profit margins. Furthermore, the industry is unable to pass the increased labour costs to the consumers as the price of the commodity is very much governed by

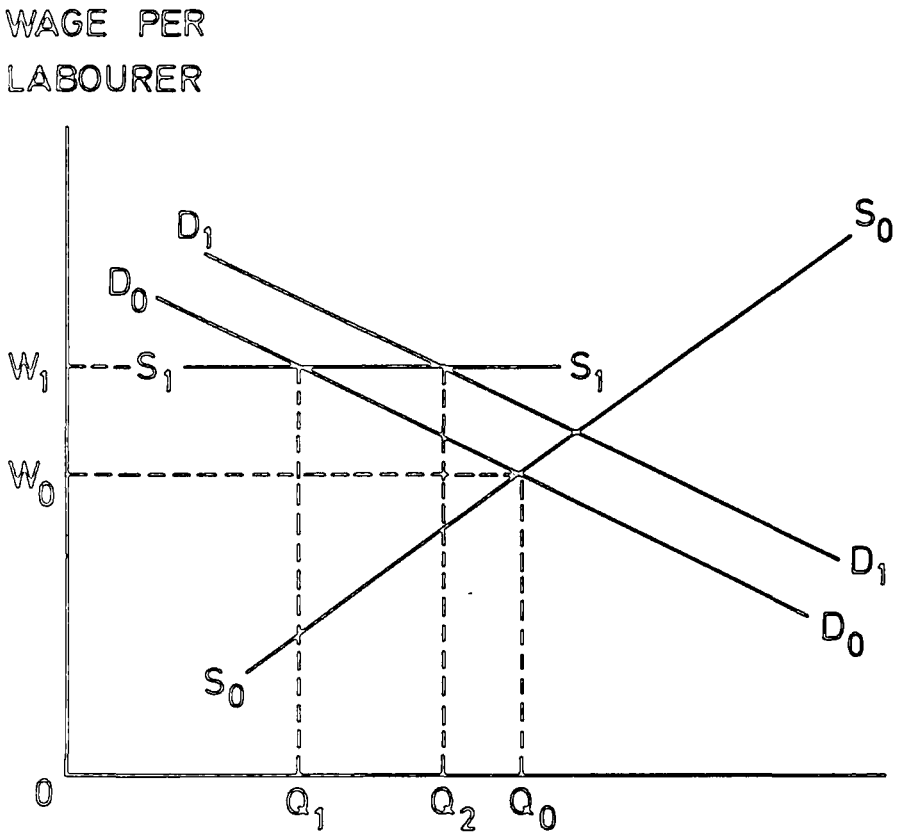

FIGURE 4·1 : OPTIMUM EMPLOYMENT IN THE ESTATE INDUSTRY

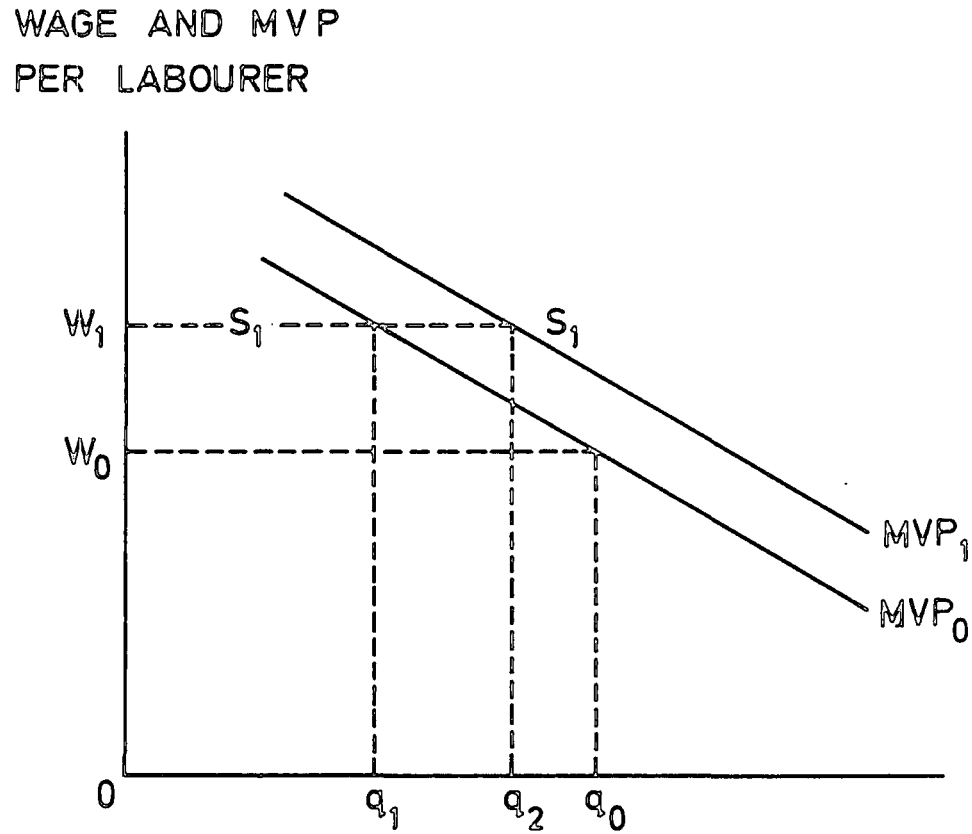

FIGURE 4·2 : OPTIMUM EMPLOYMENT ON INDIVIDUAL ESTATE

the world market.

Lets assume that the wage rate is fixed by collective bargaining at OW_1. The new supply curve is now S_1S_1. At OW_1, the demand for labour in the industry drops from OQ_o to OQ_1. Figure 4.2 refers to the employment situation on an individual estate. The demand for labour is represented by the marginal value product curve MVP_o. As the objective of management is to maximise profits, it will employ workers up to the point where the price of labour is equal to its marginal value product (marginal productivity theory of wages). Thus, with the increase in wage level from OW_o to OW_1, employment on the estate falls from Oq_o to Oq_1. If the management does not lower employment to this level, its marginal cost will exceed the marginal value product.

Even in a situation where the marginal value product of labour increases simultaneously with the rise in wage level, it is insufficient to offset a reduction in the demand for labour on the estate. As can be seen in Figure 4.2, the level of employment drops from Oq_o to Oq_2 in spite of a shift in the marginal value product curve to MVP_1. Increase in the marginal value product could arise from improved productivity, a higher commodity price, or both. At the industry level, the situation is represented by a shift in the labour demand curve from D_oD_o to D_1D_1. The optimum employment of labour in the industry declines from OQ_o to OQ_2. Thus, a higher wage level is attained at the expense of lower potential employment in the industry.

4.3 Earning Trends and Differentials

This section is concerned with the main issue at hand, that is, whether low earnings are the main factor behind the outflow of labour from the estates to the urban centres. The earning trends in the plantation industry are first examined. A time series analysis is

carried out. For the rubber sector, this covered the period 1959-1980. As the 1959 agreement represented a significant event in the history of wage negotiations, it was thought appropriate that the year be chosen as the starting point of analysis. In the case of oil palm, analysis date from 1967, for which published data are available, covering the period up to 1980.

The trend of earnings in the rubber industry is looked at first. From Table 4.4, it can be seen that earnings of tappers have, on the whole, increased over time. By 1980, earnings had more than trebled. Two factors have an important bearing on the earnings of tappers. The first of these is the price of the commodity, which is governed by the world market. It has been pointed out earlier that wages are closely pegged to the price of the commodity. As a result, earnings of tappers fluctuate with changes in the price of rubber. This element of instability may be an important factor in explaining the shortage of labour in the industry. The relationship between the earnings of tappers and the price of rubber can be traced in Table 4.4.

In the 1960s, the price of natural rubber was at a low level. By the end of the decade, the average price of rubber had dropped to 124.4 cents per kilogram from 238.3 cents per kilogram in 1960. The declining trend continued into the early 1970s. This was largely due to the increased consumption demand for synthetic rubber. Thus between 1959 and 1972, the earnings of tappers were somewhat depressed.

The oil price boom in 1973 had a negative effect on the demand for synthetic rubber. This turnaround in events brought about a recovery of the natural rubber industry. The price of rubber rose markedly to 165.3 cents per kilogram in 1973. Concurrently, there was a significant increase in the earnings of tappers during that

Table 4.4: Relationship between the Earnings of Tappers and the Price of Rubber[5]

Year	Average Monthly Earnings ($)	Domestic Average Price of Rubber (cents per kilogram)
1959	82	223.90
1960	94	238.28
1961	86	184.17
1962	86	172.40
1963	85	159.66
1964	91	150.22
1965	88	154.37
1966	94	144.14
1967	97	119.23
1968	99	117.11
1969	116	153.93
1970	n.a.	124.39
1971	110	101.63
1972	107	93.52
1973	149	165.33
1974	195	179.43
1975	139	136.69
1976	212	202.76
1977	197	199.06
1978	220	229.99
1979	254	279.41
1980	259	312.35

year. The buoyant price of rubber prevailed until 1974.

In 1975, the price of rubber fell as a result of the world economic recession. The price of rubber stood at 136.7 cents per kilogram, compared with 179.4 cents per kilogram in 1974. Consequently, the earnings of tappers dropped sharply in 1975, as can be seen in Table 4.4. The price of rubber however recovered the following year, and remained buoyant for the rest of the decade. Significant increases in the price of rubber from 1978 onwards saw a steady upward trend in the earnings of tappers. The price of rubber in 1980 of 312.4 cents per kilogram was the highest recorded in 29 years.

Collective bargaining is the other important variable which influence the earnings of tappers. It can be observed from Table 4.4

that earnings move in a series of plateaus, in line with the signing of each successive wage agreement. The pattern is discernible in the 1970s, especially during the 1972-1975 and 1976-1978 periods. Much of the increase in the earnings of tappers can be attributed to the success of the union in its negotiations with MAPA for better wages, although how well they would have done in the absence of a union must be subject to debate.

In the oil palm industry, the earnings of harvesters have also increased. By 1980, average earnings of the latter was $344, compared with $136 in 1967. Earnings too were influenced by the price of the commodity as can be seen in Table 4.5. The relatively low price levels of crude palm oil between 1967 and 1973 were reflected in the rather stagnant earnings during this period. The price of the commodity rose sharply in 1974, which increased the earnings of harvesters markedly. The increase in earnings was also partly due to the implementation of the first national wage agreement in that year.

Prices remained generally high for the remainder of the decade. With buoyant price levels, earnings continued on an upward trend. The only exception was in 1976 when there was a sudden drop in the price of crude palm oil. In that year, earnings of harvesters declined as a consequence. Thus, earnings of harvesters also fluctuated, but less widely than tappers. It can also be seen that harvesters generally earned more than tappers. This could be due to the more physically arduous task involved in harvesting.

Earnings up to now have not taken into account the cost of living. Real earnings were derived by dividing average monthly earnings for each year with the respective Consumer Price Index. Data available for the Consumer Price Index was based on the year 1967. Analysis therefore covers the period 1967-1980. It can be

Table 4.5: Relationship between the Earnings of Harvesters and the Price of Crude Palm Oil[6]

Year	Average Monthly Earnings ($)	Domestic Average Price of Crude Palm Oil ($ per metric tonne)
1967	136	614.18
1968	130	439.79
1969	119	430.03
1970	n.a.	641.30
1971	146	673.05
1972	130	482.19
1973	140	570.08
1974	193	1,152.50
1975	209	1,055.23
1976	181	881.65
1977	205	1,224.56
1978	249	1,178.28
1979	276	1,309.47
1980	344	1,146.00

seen from Table 4.6 that there have been only little growth in real earnings over the span of fourteen years. This implies that the union was not exactly successful in raising the living standards of its members. The annual increase in real earnings of tappers averaged only 2.9 per cent. In the case of harvesters, the rate was lower at 2.5 per cent per annum, which may reflect the later implementation of a national wage agreement in the oil palm industry.

Low wages have often been claimed as the main reason behind the exodus of labour from the estates to the urban centres. A comparative study of earnings is undertaken to test this contention. As factories have been reported to have drawn away a great number of labour from the estates, earnings in the manufacturing sector are compared. The sector has contributed substantially to the economic growth of the country. Its share of the Gross Domestic Product was estimated at 20 per cent in 1980. In terms of employment, the manufacturing sector generated 416,000 new jobs over the period 1970-1980. This represented 24.5 per cent of total new employment created in the economy during the decade.

Table 4.6: Real Earnings in the Estate Sector

Year	Tappers ($)	Harvesters ($)
1967	97	136
1968	99	130
1969	117	120
1970	n.a.	n.a.
1971	107	142
1972	101	122
1973	127	119
1974	142	140
1975	97	145
1976	144	123
1977	127	132
1978	136	153
1979	151	164
1980	144	192

The electronics and textile industries were chosen for comparison. The choice of these industries was based on two grounds. First, they are labour-intensive and, second, the industries accounted for the bulk of the total number of new jobs created in the manufacturing sector in the 1970s. Data was extracted from the various issues of the Monthly Industrial Statistics, published by the Department of Statistics. Analysis goes as far back as 1973, as a complete set of data is available only from that date onwards.

The earnings of tappers were compared first. This is shown in Table 4.7. Between 1973 and 1976, with the exception of 1975, the earnings of tappers were above that of electronics industry workers. However, from 1977 until 1980, the electronics industry workers earned more than tappers. The difference in earnings decreased gradually though, but only up to 1979. The gap in earnings widened in 1980 as a result of a sharp rise in wages in the electronics industry in that year.

Table 4.7: Comparison of Earnings between Tappers and Industrial Workers

Year	Average Monthly Earnings		
	Tappers ($)	Electronics Industry Workers ($)	Textile Industry Workers ($)
1973	149	98	122
1974	195	185	149
1975	139	201	160
1976	212	207	194
1977	197	255	202
1978	220	257	223
1979	254	278	245
1980	259	341	269

When compared with textile industry workers, tappers were financially better off between 1973 and 1974. The situation was reversed in 1975 as a result of the drop in the price of rubber in that year. The price of the commodity recovered the following year and earnings of tappers were above that of textile industry workers. However, from 1977 onwards, the latter earned more. The only exception was in 1979. The gap in earnings though were only small.

A similar analysis undertaken for harvesters is shown in Table 4.8. The latter earned more than electronics industry workers between 1973 and 1975. A change in the trend occurred in 1976 and earnings of harvesters remained lower than that of electronics industry workers until 1979. The gap in earnings however narrowed substantially over the period. Indeed, the earning differentials in 1978 and 1979 were only marginal. The earnings of harvesters were higher in 1980, in spite of a marked rise in wages in the electronics industry in that year.

Table 4.8: Comparison of Earnings between Harvesters and Industrial Workers

Year	Average Monthly Earnings		
	Harvesters ($)	Electronics Industry Workers ($)	Textile Industry Workers ($)
1973	140	98	122
1974	193	185	149
1975	209	201	160
1976	181	207	194
1977	205	255	202
1978	249	257	223
1979	276	278	245
1980	344	341	269

The harvesters were generally financially better off when compared with textile industry workers. During the period under analysis, the latter earned more than tappers only in 1976. The earning differentials moved progressively in favour of the harvesters between 1977 and 1980. Indeed, the earnings of harvesters in 1980 were 27.9 per cent higher than that of textile industry workers.

The foregoing analysis however did not take into account family employment on the estates. Both husband and wife normally work on the estate. In addition, estate workers enjoy benefits such as free housing. Thus, taking these factors into account, it can be argued that the real income of an estate family compares more than favourably with that of the unskilled urban employee.

Why then is there an exodus of labour from the estates to the urban centres? It is not only a matter of relative earnings but also status, prospects and life-style. A social stigma is attached to estate work. It is considered low in status. The manual and monotonous nature of the job offers little prospects for career advancement. Working conditions are not attractive. The tapper, for example, has to start work early at 5.30 in the morning. In the case of the

harvester, there is the physically arduous task involved in cutting the fruit bunches from the tall palms.

The conditions of living on the estates are poor. Basic amenities, such as water and electricity supply, are lacking on many estates. Housing, although free, is inadequate in terms of number of rooms and floor space requirement for the generally large estate households. The condition of some of the houses is deplorable. There are often no social, recreational and entertainment facilities on the estates for the youths to indulge in after work. The desire for a better quality of life will drive the youth to seek employment in the city, even though some urban jobs may pay a little less.

Against this background is the instability of earnings pointed out earlier on. This factor in being a crucial element in explaining the labour shortage in the plantation industry is reflected in the findings of the study conducted by the Rubber Research Institute of Malaysia[7]. The study looked at the willingness of children of estate workers to remain on the plantations. About 68 per cent of the youths interviewed expressed their desire to migrate to the towns in search of work. The majority of them stated job security and steady income that urban jobs provided as their main reason for wanting to migrate to the towns.

What about the uncertainty of finding an urban job? Wouldn't this deter the estate worker from migrating to the city? The Todaro formulation of rural-urban migration stipulates that an individual's decision to move to the city is also based on the probability of finding a job.[8] It can be said that the estate worker perceives the chances of being employed in the city as high. First, unemployment rate, urban as well as national, is on the decline, which is indicative of a general availability of job opportunities. Second, the estate

worker expects the probability of securing a job to increase over time as he is able to broaden his urban contacts.

The Federal Land Development Authority (FELDA) schemes have also drawn labour away from the estates. A comparison of income between estate workers and settlers on FELDA schemes are shown in Table 4.9. It can be seen that tappers and harvesters earned much less than settlers on the rubber and oil palm schemes respectively. Even after deduction of development loan instalments and farm operating costs, earnings of FELDA settlers were still relatively higher. As mentioned in the previous chapter, the settler has to repay the Authority for the costs incurred in clearing the land, planting the crops and maintaining it to maturity. In addition to higher returns, the settler is issued a title to his holding after all the financial obligations have been met. It is thus not surprising that the estate worker finds participation in these schemes more attractive.

Table 4.9: Comparison of Earnings between Estate Workers and Settlers on the Federal Land Development Authority (FELDA) Schemes[9]

Year	Average Monthly Earnings			
	Estates		FELDA Schemes	
	Tappers ($)	Harvesters ($)	Rubber Smallholders ($)	Oil Palm Smallholders ($)
1976	221	181	340	514
1977	197	205	370	573
1978	220	249	398	804
1979	254	276	482	831
1980	259	344	472	709

Note: Data for FELDA schemes refer to take-home income after deduction of development loan instalments and farm operating costs.

4.4 Recommendations

The findings of this chapter can be summarised as follows. Low earnings are not the main reason behind the exodus of labour from the estates to the urban centres. It is not so much a matter of relative earnings as status, prospects and life-style. Although there were urban-rural wage differentials, this was not always the case. Estate workers earned on a par, if not more, than those in certain urban jobs. This was particularly so in the case of harvesters. When family employment and fringe benefits are taken into account, the estate worker is better off than the unskilled urban employee. But against this, earnings are unstable. Real earnings have also shown only little growth.

Thus it can be concluded from the findings that to stem the outflow of labour, the earning differential will have to move sharply in favour of the estates. This would compensate for the drudgery and deprivations of estate life. However, such a measure would have to be matched by an increase in productivity, otherwise, in the long run, it would be limited by cost considerations. It also has to be taken into account that the plantation industry, unlike the manufacturing sector, is unable to mark up the selling price of the commodity as this is governed by the world market. Furthermore, the industry is labour-intensive. The wage element therefore has a decisive influence on profit margins.

Labour productivity on the estates have increased significantly. Does this indicate that the industry can afford to increase wages? Average annual productivity of labour on rubber estates increased by more than two fold from 1472 kilogram per worker in 1960 to 3510 kilogram per worker in 1980. In the case of oil palm estates, labour productivity rose from 7.2 tonne per worker in 1963 to 23.2 tonne per worker in 1980.

Findings of a paper published by Sepien, Lim and Koh[10] revealed that yield was a crucial factor in determining the production cost and profit margin of rubber producers. The paper established a negative relationship between production cost and yield. A higher yield per hectare resulted in a lower production cost per tonne and a larger margin to the producers, and vice versa. Yields on rubber estates increased markedly from 759 kilogram per hectare in 1960 to 1428 kilogram per hectare in 1980. Does this reflect the capacity of the rubber industry to increase wages?

The findings of the paper also revealed an increase in the profit margin of rubber producers on estates studied. The average margin of producers grew by 52 per cent from 47 cents per kilogram in 1966 to 72 cents per kilogram in 1978. The current cost of rubber production per pound is around 50 cents. On the other hand, the price of the commodity is in the region of 140-150 cents per pound. The oil palm industry is in a more able position to increase wages. According to estimates by MAPA, the average pre-tax profit per acre for oil palm is $800-$900, while in the case of rubber it is only $400-$500.[11] Thus, the plantation industry appears to be presently well placed, financially, to increase wages. However, the price of the commodity is the big uncertainty as to whether the industry would be able to meet increases in labour costs in the future.

The industry must also make estate employment more secure and remunerative if it is to retain its labour force, or for that matter, to attract new workers. The government service, for example, offers secure monthly salaries with annual increments and pension benefits. The manufacturing sector pays its employees bonus. At present, estate workers are paid daily and their earnings fluctuate with changes in the price of the commodity. Thus, to make estate employment more secure, the current practice of pegging wages

to the price of the commodity should be terminated and the workers paid on a monthly basis instead. However, there is the other side of the coin to the argument. Can the industry afford to fix wages irrespective of the price of the commodity? In the event of low commodity price levels, profits will be squeezed, as a result of which, employment on the estates would be reduced further than would otherwise be the case.

There is also the need to make estate employment more remunerative. Bonuses could be given to the workers. Currently, bonuses are only paid to estate managers and administrative staff. The industry could consider the payment of yearly increments and pensions to estate workers. A scheme whereby the workers are allowed to purchase shares in their estate of employment could also be looked into. Apart from providing additional income in terms of dividends, such a scheme would also have positive effects on the productivity of the workers.

Notes:

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2. Rubber Research Institute of Malaysia, Rubber Owners' Manual-Economics and Management in Production and Marketing (1976), p.147.

3. Colin Barlow, The Natural Rubber Industry: Its Development, Technology and Economy in Malaysia (1978), pp. 101-102.

4. J.L. Hanson, A Textbook of Economics (1980), p.319.

5. Department of Statistics, Rubber Statistics Handbook, various issues.

6. Department of Statistics, Oil Palm, Coconut and Tea Statistics, various issues.

7. James Nayagam and Abdullah Sepien, Labour Situations in Rubber Estates and Smallholdings (1981), pp.33-35.

8. Michael P. Todaro, Economics for a Developing World (1981), pp. 220-221.

9. Raja Tan Sri Muhammad Alias Ali, 'Productivity in Agriculture'. (Paper presented at the National Seminar on Productivity, 1982).

10. Abdullah Sepien, F.H. Lim and M.H. Koh, eds., 'Production Cost of Rubber on Estates: An Ex-Post Analysis', Proceedings of the Rubber Research Institute of Malaysia Planters' Conference 1981 (1982), pp. 247-258.

11. Leo Katzen, Report on Wage Trends, Differentials, Productivity and Labour Shortage in Malaysia in the Third Malaysia Plan Period and their Implications for Policy (1980), p.39.

5. RURAL-URBAN MIGRATION

A notable feature of Peninsular Malaysia's population in the decade of the seventies was that a greater proportion had become urbanised. About 35 per cent of the population lived in urban areas in 1980, compared with only 28.8 per cent in 1970. In absolute terms, the urban population increased from 2.6 million in 1970 to 4.1 million in 1980, with growth rates averaging 4.6 per cent per annum. The rather rapid rate of urbanisation during the decade was primarily attributable to the growth of manufacturing, utilities and the services sector which offered an increasing number of job opportunities. Economic development in the country has also resulted in a migration of youths from the estates to the urban centres. This has created a shortage of labour in the plantation industry. The estates have to compete with the growing urban industries for their labour needs.

The chapter looks at various aspects of the rural-urban migration issue in relation to the estate sector. What are the influencing factors that have given rise to the phenomenon? This will be discussed in the first section of the chapter. The effects of migration on the age structure of the estate labour force will be examined. Reference will also be made to the socio-economic background of estate workers and its influence on rural-urban migration.

The second section explores the causes of the exodus of labour from the estates to the urban centres. The 'pull' and 'push' factors will be identified. Mention has been made in earlier chapters of the reasons for the urban migration of labour. These will now be classified and discussed under the appropriate heading, that is, 'pull' or 'push' factors. The final section of the chapter is concerned with policy measures and the implications involved.

5.1 The Migration Process

It has been the practice in the plantation industry for the dependents of estate workers to replace those who have retired or left. Tapping skills, for example, are inculcated on small children. Those as young as 12, sometimes less, learn to tap. However, the estates now face a depletion of this traditional source of supply of labour. The youths prefer to make their lives outside the estates. They migrate to the cities in search of jobs. This section analyses the migration process. It examines, firstly, the influencing factors which have brought about this phenomenon and, secondly, the effect of migration on the age structure of the workforce on the estates.

5.1.1 The Influencing Factors

With economic development and modernisation, the youths on the estates are more aware of the kind of life they want to lead. Communication factors play a contributory role in the migration process. This includes improved transportation and the 'modernising' impact of the introduction of radio and television. As a result, estate workers are nowadays well exposed. They are aware of the development and opportunities in the urban centres. Perhaps, more significant, has been the influence of education, which has brought about a change in attitudes and values among the younger generation on the estates. The spread of education to the rural areas has not only increased awareness of new opportunities, but also raised job expectations. Furthermore, the educational system is urban-oriented.

There is a positive correlation between educational attainment and the propensity to migrate. Those with more years of schooling, everything else being equal, are more likely to migrate, and vice versa. This migration characteristic is reflected in the study conducted by the Rubber Research Institute of Malaysia[1]. It was

found in the study that the youths working on the estates investigated were mainly those who were less educated. A majority had only primary schooling, while some had no formal education at all. Similar findings were revealed in the socio-economic study of estate workers by the Socio-Economic Research Unit (SERU)[2] of the Prime Minister's Department. A significant percentage of the workers surveyed indicated they intended to continue working permanently on the estates. The situation can be explained by the generally very low level of education attained by the estate workers.

With increasing education opportunities being provided by the Government in rural areas, it is likely that an increasing number of children of estate workers will acquire three or more years of secondary schooling. Thus, the rate of migration of youths, particularly of the better educated, from the estates to urban areas can be expected to increase. Such a trend will have serious repercussions for the estate sector in terms of its labour supply. Already the sector is facing a labour shortage and this will only serve to worsen the situation.

The migration process is further reinforced by the attitudes and expectations of parents, who see the returns to education in terms of modern sector jobs. They therefore encourage their children to leave the traditional agricultural background. With the availability of better educational facilities it is inevitable that parents would hope for upward social mobility for their children. Findings of recent studies bear testimony of this fact. The study by the Socio-Economic Research Unit[3] noted that a majority of parents preferred their children not to stay and work on the estates. Instead, they encouraged their children to seek employment in the cities. Also, the estate workers placed importance on their children's education and academic performance.

The findings of the study by the Ministry of Labour and Manpower[4] concurred with that of the Socio-Economic Research Unit. A majority of the estate workers interviewed did not want their children to work on the estates. They preferred their children to get a better and more secure job in the city. Of the category of estate workers who were undecided on the matter, many were of the view that if their children obtained good academic results, they would encourage them to find urban employment.

A brief look is taken at the socio-economic background of estate workers and the influence this has on the exodus of labour to the urban centres. Estate workers have been identified as one of the poverty groups in the country. The incidence of poverty in the estate sector was estimated at 35.1 per cent in 1980. The socio-economic profile of estate workers is provided by the SERU[5] study mentioned earlier in the chapter. Indebtedness among estate workers in the study was found to be high. It can be implied that earnings were generally insufficient to meet the household expenditure of the estate workers. The difficulties are accentuated by the large household sizes found on the estates.

The mean household size on the rubber estates in the study was 6.2 members. In the case of oil palm estates, it was lower at 5.5 members. A majority of the estate workers had five children or less. However, those with six to ten children were by no means uncommon, especially among rubber estate workers. About 24 per cent of the workers on rubber estates were found to be in this category. Also, the estate workers had at least a parent, sister, brother or relative staying with them. Thus, the dependency ratio on the estates was high. It is therefore not surprising that the estate worker's income was generally inadequate to support his household. The rubber estate workers were relatively financially worse off. The average

worker spent as much as he earned, mainly on basic necessities for his family. There was little opportunity to save. This situation can be explained by the larger family household size coupled with, as pointed out in the previous chapter, lower earnings than oil palm estate workers.

In terms of ownership of household equipment, such as television sets, sewing machines and refrigerators, it was found that estate workers were not as well equipped as the average rural household. Furthermore, these items were mostly bought through hire-purchase schemes which must have weighed heavily on the household budget. Thus against this background of poverty, it can be understood why parents encouraged their children to seek a better life for themselves outside the estates. In this aspect, it can also be seen why parents placed importance on their children's education. They see good academic qualifications as a way out of the poverty on the estates for their children, as it would enhance job prospects in the cities.

5.1.2 Effect of Migration on the Age Structure

The migration of youths to the urban centres would affect the age structure of the estate labour force. It can be said that the majority of the migrants are 15-24 years of age. Thus with the younger population leaving the estates, those remaining behind are of the older age group. Official published data on age structure of the labour force in the estate sector were not available. Analysis is thus based on data extracted from the findings of surveys of various agencies. The age distribution of the workforce on the estates studied by the Socio-Economic Research Unit is shown below in Table 5.1.

Table 5.1: Age Distribution on Estates Surveyed by the Socio-Economic Research Unit

Age Group (Years)	Rubber Estates (Percentage)	Oil Palm Estates (Percentage)	National Labour Force[6] (Percentage)
Less than 25	15.6	31.0	35.2
26-40	44.4	45.7	36.5
41-55	37.9	22.5	21.3
55+	2.1	0.8	7.0
Total	100.0	100.0	100.0

It can be seen from the table that the labour force on the estates consisted largely of the older age group. The average age on the rubber estates was 38 years. When compared with the national labour force, the proportion of rubber estate workers below the age of 25 was very much lower at 15.6 per cent. This could reflect the youths leaving the estates. The oil palm estate workers however were generally of a relatively younger age group. Average age of the workforce was 32 years. The proportion of the labour force below the age of 25 was significantly higher. The younger age distribution does not necessarily refute the occurrence of a rural-urban drift. Rather, it could be due to the nature of the work involved. Harvesting is a physically strenuous task and young able-bodied men are required to cut the fruit bunches from the tall palms, which explains why relatively few workers over 55 are employed on the estates.

The United Planting Association of Malaysia (UPAM)[7] noted signs of a slightly older labour force in its survey of labour shortages on member estates in 1981. The proportion of the workforce under 30 years of age dropped to 43.9 per cent from 45.3 per cent in a previous survey carried out the year before. This is

yet another confirmation of the changing trend in the age structure on the estates arising from the migration of youths to the urban centres. Would an older workforce have an effect on productivity? Although less physically able, they may work harder and longer hours. A significant point to note from the UPAM survey is that a substantial proportion of the workforce was still below 30 years of age. As this group is probably more mobile in terms of switching employment, the plantation sector is extremely vulnerable to rural-urban drift.

5.2 The 'Pull' and 'Push' Factors

The migration process has been largely explained in economic literature by 'pull' and 'push' factors. This concept is applied in the context of the present analysis, set against the local conditions and adapted to the stage of socio-economic development in Peninsular Malaysia. The 'pull' factors are those which attract labour to the urban centres. On the other hand, the 'push' factors are those which necessitate the youths to leave the estates.

5.2.1 The 'Pull' Factors

The principal underlying factor in the traditional migration theory, as in the Ranis-Fei model, is urban-rural wage differentials. Wages in favour of the former will 'pull' the rural populace to the modern urban sector. As seen in chapter four, wages in certain urban jobs were higher than that obtained on the estates. However, this was not always the case. There were years when the estate workers were better off, especially in times of buoyant commodity prices. When other factors are taken into account, namely family employment and fringe benefits, the real income of an estate worker compares more than favourably with that of the unskilled urban

employee. Why then is there an outflow of labour from the estates to the cities? This can be explained by the Todaro model of rural-urban migration.

The basic behavioural assumption of the Todaro model is that an individual's decision to migrate is based on an implicit, 'expected' income maximisation, or what is termed as the 'permanent' income hypothesis.[8] The potential migrant compares his expected income in the urban sector over a long-term horizon with the prevailing average rural income, and moves to the city if the former exceeds the latter. The Todaro model thus postulates that migration proceeds in response to urban-rural differences in expected, rather than, actual earnings, viewed over a period of time. In this context, the estate worker will migrate even though he is presently better off in terms of real income, or, if the starting salary in the new urban job is lower. The estate worker envisages greater prospects of career advancement in the urban job in the long run. Thus, as long as the 'present value' of the net stream of expected urban income over a time horizon exceeds that prevailing on the plantation, the estate worker will migrate to the city.

The other commonly noted 'pull' factor is the attraction of the 'bright lights' of the cities. This aspect of urban life does indeed cast a strong drawing effect, as reflected in the findings of the study by the Rubber Research Institute of Malaysia[9]. In the study, youths who intended to migrate were asked whether they would remain on the estates if they were paid wages higher than offered in the towns for similar categories of work. About 60 per cent of the youths replied that they still preferred urban jobs. The reasons given were that the towns provided a steady income, job security and better social, recreational and entertainment facilities. Another related factor is the perceived glamour of living and working in the

cities. Even if the estate workers were better off in terms of real income, the conjured image of higher social standing and the good life that urban jobs represent will lure youths to the cities.

5.2.2 The 'Push' Factors

Attention is now turned to the 'push' factors. The first of these is the limited potential of estate work. The nature of the job is manual and monotonous, thus offering no new experience that can become the basis for career advancement. Opportunities to acquire further training are also non-existent on the estates. Thus, it is the lack of prospects which necessitates the estate worker to seek employment in the city. It is only natural for the estate youths to want a promising job with sufficient avenues for career development, which urban employment offers.

An important change in the rural scene as a result of economic development is the increasing desire for material progress.[10] Status within the community is bestowed upon those who are economically successful. Since the youths cannot aspire for this if they remain on the estates, they migrate to the city to seek their fortune. Just the fact of being employed in the city, irrespective of job or income, and the ability to return home once in a while with fine clothes and some money are enough to make the estate youth more respectable in the eyes of his community.

Another 'push' factor is the low status attached to estate work. Being traditionally associated with cheap exploitable labour, the work carries with it a low prestige. The status of the estate worker must thus be raised. Good public relations and persistent education would be needed to uplift and enhance the dignity of the estate worker so that he can be proud of his occupation. But even this may not help much towards eliminating the prejudice against

estate work. With economic development, there is the tendency to avoid work that is physically demanding, monotonous and lacking prospects. Such is the nature of estate work. There is also the reluctance to abandon the traditional management systems and practices among some quarters of the industry.[11] Estate managers and officials adopt an aloof stance towards their workforce. This does more harm than good to industrial relations on the estates. Management should instead identify itself with its workers and treat them as a partner in progress.

Poor living conditions on the estates are also an important 'push' factor. Basic facilities on the estates are lacking. Housing, although free, is for the most part antiquated. Electricity is restricted to certain hours of the day, especially in the case of the more remote or smaller estates which have to generate their own supply of power. On some estates, there is no lighting at all. The socio-economic study of estate workers by SERU[12] provides an insight into the living conditions on the plantations.

A significant point noted in the study was the imbalance in amenities provided between MAPA and non-MAPA estates. Generally, the workers on MAPA estates enjoyed better facilities in terms of sanitation, community halls, sundry shops, water and electricity supply, and places of worship. One way of overcoming this gap between the MAPA and non-MAPA group of estates is through the imposition of stricter legal requirements for the provision of amenities under the labour code. At the moment this is left to the discretion of the estate management. However, it must be borne in mind that the smaller estates may not be in a financial position to provide all the amenities. Assistance should therefore be given by the Government to these estates.

Housing on the estates in the study was generally found to be a serious problem, both in terms of the availability of adequate number of rooms and the floor space requirement for the generally large households. A significant proportion of the estate workers lived in quarters that were inadequate for their household size. Nearly all the estate workers lived in houses consisting of two rooms or less. The inadequate number of rooms was substantiated by the fact that a significant proportion of the households used the kitchen and the living room for sleeping. A large proportion of the quarters provided had been built in pre-World War II days and the condition of some of them were deplorable and dilapidated.

There was an overwhelming desire among the estate workers to own houses. A revolving fund with an initial capital of $10 million was set up under the Third Malaysia Plan (1975-1980) to help finance a house ownership scheme among estate workers.[13] Under the scheme, the estate management would provide the land and build the houses, while the Government finances the purchase by the workers. However, implementation of the scheme on the estates has been rather slow. It was reported that, up to date, only about 1,500 such houses have been built by 12 estates.[14] There are over 2,000 estates in the country.

Two main problems hinder the implementation of the scheme. First, the delay in getting the appropriate approvals from the various Government agencies concerned. The authorities should therefore set aside the usual red-tape and speed up approvals. Second, the question of provision of land by the estate management. In view of the great interest among the estate workers to own houses, the implementation of the scheme should be stepped up and the problems hindering its operation overcome as soon as possible. However, such a scheme would result in the estates being permanently settled with

the owners of the houses, irrespective of whether they continued working for the management or not.

The two basic amenities, water and electricity supply, were not enjoyed by all the estate workers. About 89 per cent of the workers on rubber estates enjoyed either individual piped water supply or a stand pipe facility. A comparatively higher percentage of workers on MAPA estates had access to water supply facilities. Standards of water supply on the oil palm estates were not as high. A lower proportion (73 per cent) had access to piped water supply. The non-MAPA estates were again worse off. A high proportion of workers on these estates had to resort to other sources of supply, such as well and river water. In terms of electricity, only 64 per cent of the workers on rubber estates were provided with this basic amenity. The proportion of oil palm estate workers enjoying electricity supply was very much lower at 48 per cent. The MAPA estates had better lighting facilities in both cases.

Community hall facilities were lacking on the estates. Less than half of the workers on rubber estates enjoyed this facility. This was also the case on oil palm estates. Only a small proportion of the estate workers were satisfied with the community halls provided. It is important that more and better community halls be built to provide for social recreation and entertainment among the estate population. Such facilities would help towards relieving the boredom of estate life. There is often no opportunity for the estate youths to take part in social activities or seek some form of entertainment of the type which are easily found in the urban areas. It is this rural work syndrome which makes the youth ever willing to take an urban-based job in preference to employment on the estate, even if pay in the former is somewhat lower.

Health services on the estates were reported to be well below the desired level.[15] On many estates, only the very basic medicines were available as the management were reluctant to incur additional costs. The estate clinics and dispensaries were in a deplorable state. Medical facilities form a debit in the estate budget and it is thus not surprising that management would prefer to keep this expense to the minimum unless they are caring employers. The hospital assistants, who form the backbone of the estate health service in terms of day-to-day curative care, had no practical training. Medical officers made only weekly visits to the estates. In the more remote estates, the visiting medical officer dropped in once a month, or even less frequently. There were also estates which did not provide any medical facilities. The workers had to seek treatment at the nearest district general hospital or Government clinic which was normally situated a distance away.

Finally, another important 'push' factor is the insecurity of income. This issue has been discussed in detail in chapter four. As pointed out, wages are pegged to the price of the commodity. Earnings of estate workers therefore fluctuate with changes in the price of the commodity. Also, the workers are paid on a daily, rather than, monthly basis. In contrast, urban employment offers a steady monthly income.

5.3 Measures and Policy Implications

What can be done to discourage the migration of labour from the estates to the cities? From the foregoing analysis of the 'pull' and 'push' factors, it may be concluded that measures could be taken to make estate employment more attractive and satisfying. Such measures include improving the living conditions on the estates. At present, most employers provide nothing more than the minimum

amenities stipulated in the labour legislation. The following steps could be taken to improve the living conditions on the estates.

The present 'cubicle' style of accommodation could be replaced by modern living quarters. A large proportion of these cubicles were built in pre-World War II days and are inadequate in terms of number of rooms and floor space requirement for the generally large estate households. The condition of some of them are deplorable and dilapidated. Such was evident in the SERU study. In connexion with this, the current Minimum Standard of Housing Act (1966) could be revised. New standards could instead be introduced, requiring that the present cubicles be replaced by semi-detached houses with two or three bedrooms. The process of replacement could be done under the home ownership concept, whereby a minimal sum is deducted monthly from the estate worker's income to pay as instalments towards the purchase of the house. This would give the estate workers a sense of belonging and induce them to remain on the plantations. However, as pointed out earlier, such a scheme would result in the estates being permanently settled with the owners of the houses, irrespective of whether they continued working for the management or not.

Basic amenities, such as water and electricity supply, could be provided on the estates. However, high costs are involved in supplying these infrastructural facilities. In view of this, Government assistance could be given by including estates in its rural water and electrification programmes. The need to bring the 'bright lights' to the estates is a recognised one. Of course the cities offer more in the way of entertainment facilities, but the management can create diversions on the estates. Cinemas, social clubs and sports facilities could be built on the estates to help relieve the boredom, especially among the youths.

Health services on the estates could be improved. Besides providing a dispensary and the services of a trained full-time hospital assistant, attention could also be given to the improvement of health standards of the estate workers. In relation to this, the concept of community 'link workers'[16] could be introduced on the estates. This would enable the community itself to participate in the health care scheme. The concept has already been implemented in a number of developing countries including Bangladesh, Thailand and Indonesia.

The link worker would be selected from the estate community itself. Apart from being trained to administer first aid, the link worker would monitor health information concerning the families for which he is responsible and educate them on hygiene and healthy practices. Considerable care would need to be taken in selecting the link worker. The latter must possess the qualities of honesty, concern for others and the ability to communicate effectively. In the countries where the concept has been implemented, it has been found that the optimum ratio of link worker to population is one to every twenty families.

Measures to make estate employment more attractive have already been discussed in detail in the previous chapter. These include paying workers on a monthly, rather than, daily basis, offering higher wages, bonuses, annual increments, pensions and limited equity participation.

The solution to rural-urban migration however is much more complicated than merely improving the conditions of living on the estates and offering higher monetary rewards. Apart from the fact that migration moves are notoriously difficult to influence, the crux of the matter is that estate work and the life-style associated with it is losing its appeal to the younger generation. Even higher wages

may not eliminate the growing prejudice against estate work which is very low on the occupational scale.

Improving the living conditions on the estates too may not necessarily stem the urban drift. Estates with good and up-to-date housing and social amenities are among those currently faced with an acute labour shortage.[17] Also, the spread of education to the rural areas has increased job expectations beyond estate level. The occupation is seen as an unworthy return on investment in education. A time will come in the near future when the youths who have adequate education will refuse to work on the estates in preference to urban employment.

The following implications thus arise. To provide amenities will cost the estates money. On welfare grounds there is a case for improving the quality of life on the estates. But if the labour force migrates to the cities in any case, then there is no economic justification for the expenditure incurred. Similarly, the argument can be applied to the Government funds that would be allocated to the estate sector. The spending budget of any Government is limited. There is thus an opportunity cost involved in extending financial assistance to the estates. The funds could instead have been channelled to other economic development projects.

The tightening of the labour supply in the estate sector need not be viewed as a detrimental trend, but rather as an integral part of the development process that has to be adjusted to. The shift from agriculture to industry is part of the inexorable process of change in a developing economy. Malaysia is industrializing at a rapid pace. If rural-urban migration were to be curbed, then this might retard the country's economic growth. Already the manufacturing sector is reported to be facing a shortage of labour.

To stem the migration of labour to the urban centres could serve to worsen the situation.

Also, to stem the migration process would be contrary to the Government's efforts of stepping up the absorption of the indigenous population into urban activities. As pointed out in chapter two, the Malays form the largest ethnic group on the oil palm estates. They also represent a significant proportion of the workforce on the rubber estates. Under the New Economic Policy (NEP), the Government aims to correct the economic imbalance between ethnic groups. This is to eliminate the identification of race with economic function. The Malay population have always been associated with rural employment. The Chinese on the other hand are identified with urban activities.

Furthermore, rural-urban migration does not appear to have adversely affected total production. This could be due to the increased output per worker on the estates. Labour productivity on the rubber estates increased from 3,292 kilogram per worker in 1975 to 3,776 kilogram per worker in 1980. In the case of oil palm estates, productivity of labour rose from 14.2 tonne per worker to 23.3 tonne per worker. The total production of crude palm oil showed a rising trend between 1975 and 1980. Output on the rubber estates however dropped over the same period. The fall in output though is more likely a result of the decline in the total planted area under rubber rather than the migration of labour to the urban centres.

Production trends on rubber and oil palm estates in the labour shortage and non-labour shortage areas were compared. The classification of areas was based on the findings in chapter three. The labour shortage areas (LSA) are the Southern and East Coast regions. The non-labour shortage areas (NLSA) refer to the West Coast region. Strictly speaking, there were pockets of labour

shortage in this region, but, on the whole, there was no general shortfall. Analysis revealed no decline in output in the LSA relative to the NLSA over the period 1975-1980 in both the case of rubber and oil palm estates.

Notes:

1. James Nayagam and Abdullah Sepien, Labour Situations in Rubber Estates and Smallholdings (1981), p.26.

2. Socio-Economic Research Unit, Socio-Economic Study of Rubber Estate Workers (1981), p. 37 and Socio-Economic Study of Oil Palm Estate Workers (1983), p.32.

3. Socio-Economic Research Unit, Study of Rubber Estate Workers, pp. 31-32 and Study of Oil Palm Estate Workers, pp. 25-26.

4. Department of Manpower, Study of Labour Shortage on Rubber and Oil Palm Estates (1981), pp. 38-39.

5. Socio-Economic Research Unit, Study of Rubber Estate Workers, p.22ff. and Study of Oil Palm Estate Workers, p.18ff.

6. Socio-Economic Research Unit, Study of Rubber Estate Workers, p.21.

7. United Planting Association of Malaysia, Third Report on a Survey on Estate Labour Shortage (1982), p.2.

8. Michael P. Todaro, Economics for a Developing World (1981), pp. 220-222.

9. Nayagam and Sepien, op.cit., p.35.

10. Mohd. Nor Ghani, 'Discouraging Rural to Urban Migration of the Youths in Malaysia'. (Paper presented at the Seminar on Labour Shortage and Agricultural Production, 1979).

11. 'Labour Shortage in Estates: How Severe is the Problem?', Business Times, 18 February 1981.

12. Socio-Economic Research Unit, Study of Rubber Estate Workers, p.41ff. and Study of Oil Palm Estate Workers, p.36ff.

13. Socio-Economic Research Unit, Study of Rubber Estate Workers, p.72.

14. 'Aim Behind That Housing Scheme', Malay Mail, 25 October 1980.

15. 'Estate Hospitals', New Sunday Times, 5 September 1982.

16. 'Can Urban Drift be Checked?', The Planter (Magazine of the Incorporated Society of Planters), July 1980.

17. 'Current Labour Situation in the Planting Industry in Peninsular Malaysia - A Panel Discussion', ed., Proceedings of the Rubber Research Institute of Malaysia Planters' Conference 1981 (1982), p.407.

6. A SEARCH FOR SOLUTIONS

Rubber and oil palm account for about 16 per cent of the country's Gross Domestic Product. The commodities are the country's second and third largest earner of foreign exchange respectively. Export receipts from rubber and oil palm totalled $6,840 million in 1981. The labour shortage in the plantation industry thus pose a threat to the country's economy. To date, total output has not been adversely affected. Nevertheless, concern is expressed over some reports of crop loss. The United Planting Association of Malaysia (UPAM) reported a crop loss in 1981 estimated at a total value of $75 million. This represents a substantial loss in export earnings.

Also, the country's premier position in the production of these commodities may be jeopardized. Malaysia is the largest producer of rubber and oil palm in the world. In 1981, it accounted for about 39 per cent and 57 per cent of the world's production of rubber and oil palm respectively.

Against this background, measures for dealing with the labour shortage in the estate sector assume significant importance. This is especially so in the light of the projected deterioration of the situation. The possible solutions to the labour shortage are discussed in this chapter, based on the findings and policy implications thus far arrived at in the study.

6.1 Review of Findings

The shortage of labour in the estate sector is presently localised rather than general. The situation is particularly acute in the Southern and East Coast regions of the country. The labour shortage in the plantation industry is largely a result of rural-urban migration. The migration of labour from the estates to the urban centres was discussed in terms of the 'pull' and 'push' factors.

It was shown that urban-rural wage differentials were not a 'pull' factor behind the migration of labour to the cities. Earnings on the estates were on a par, if not more, than certain urban jobs. When other factors are taken into account, namely family employment and fringe benefits, it was argued that the estate worker was better off than the unskilled urban employee. However, against this, real earnings have shown only little growth. The annual increase in the real earnings of tappers averaged 2.9 per cent. In the case of harvesters, the rate was lower at 2.5 per cent per annum.

The attraction of the 'bright lights' of the cities was noted as an important 'pull' factor. The cities offer more in the way of recreational and entertainment facilities. There is also the perceived glamour of living and working in the cities. Even if the estate worker was better off in terms of real income, the conjured image of higher social standing and the good life that urban jobs represent will lure the youth to the city.

The lack of prospects was one of the many 'push' factors identified in the study. The manual and monotonous nature of the job offers little basis for career advancement. Another 'push' factor mentioned was the social stigma attached to estate employment. The occupation is considered low in status, being associated with cheap exploitable labour. The generally poor living conditions on the estates was noted as an important 'push' factor. Housing, although free, was for the most part antiquated. Basic amenities, such as water and electricity supply, were lacking on many estates. Health services were normally well below the desired level.

There is often no opportunity for the youths to take part in social activities on the estates after work. It is this rural work syndrome which makes the youths ever willing to migrate to the cities, even though the pay in certain urban jobs may be lower. The

insecurity of income was another 'push' factor pointed out in the study. Earnings of estate workers fluctuate with changes in the price of the commodity. Also, estate workers are paid on a daily, rather than, monthly basis.

The shortage of labour in the plantation industry is also a result of the migration of workers overseas, in particular, to Singapore and the Middle East. High monetary rewards can be earned from casual and permanent jobs in these countries. The Federal Land Development Authority (FELDA) schemes have also drawn labour away from the estates. The estate workers receive first consideration when choosing settlers for the schemes by virtue of their qualifications and background. These schemes offer better long-term prospects and are thus more attractive than employment on the estates. There is the opportunity for the settler on the scheme to own the property in which he works. Earnings on these schemes were shown to be much higher than could be obtained on the estates, even after deduction of the settler's income to pay for development loan instalments and farm operating costs.

6.2 Recommendations

It was suggested from the findings of the study that wages move sharply in favour of the estate sector to stem the outflow of labour. In relation to this, the institutional determination of wages in the sector is questioned. Such a system of wage determination hinders the market mechanism from equating supply to demand in the event of a labour shortage. However, this factor must be weighed against other considerations.

The estate industry is labour-intensive. The wage element therefore has a decisive influence on profit margins. Unlike the manufacturing sector, the estate industry is unable to pass on

increases in labour costs to the consumers as the selling price of the commodity is governed by the international market. Also, any increase in wages must be matched by a rise in productivity. Otherwise, in the long run, this would be limited by a costs constraint. It was pointed out that the industry is presently well placed financially to increase wages. However, the price of the commodity is the main uncertainty as to whether it can meet increases in labour costs in the future.

A suggestion was also put forward that estate employment be made more secure and stable to retain the present labour force, or for that matter, to attract new workers. Earnings of estate workers are not as steady as those of government or industrial employees. They are paid on a daily basis and their wages fluctuate with changes in the price of the commodity.

It was proposed that the current system of pegging wages to the price of the commodity be terminated and estate workers paid on a monthly basis instead. However, question was raised as to whether the industry can afford to fix wages regardless of the commodity price factor, bearing in mind, the labour-intensive nature of the production process. Such a measure, it was pointed out, would lead to profits being squeezed in the event of depressed commodity prices. A large number of estate workers would be made redundant than would otherwise be the case.

It was recommended that bonuses be paid to estate workers, in line with the practice in the manufacturing sector. At the moment, bonus only applies to the estate managers and administrative staff. Another suggestion put forward was the payment of yearly increments and pensions similar to that in the public sector. Also, it was proposed that a scheme be introduced allowing workers to purchase

shares in the estate where they are employed. This would provide additional income in terms of dividends.

Finally, it was suggested that the quality of life on the estates be raised to stem the migration of labour to the cities. The 'cubicle' style of accommodation could be replaced by modern living quarters. Basic amenities, such as water and electricity supply, could be provided. Recreational and entertainment facilities could be built in an effort to bring the 'bright lights' to the estates. Health services on the estates could be improved.

However, it was pointed out that the solution to the labour shortage is much more complicated than merely offering higher monetary rewards and improving the living conditions on the estates. The crux of the matter is that estate work and the life-style associated with it is losing its appeal to the younger generation. Even higher wages may not help to eliminate the growing prejudice against estate work which is very low on the occupational scale. Also, the spread of education to the rural areas has increased awareness of new opportunities and raised job expectations beyond estate level. Having absorbed knowledge from books, the youths feel that they should aim for jobs available in the offices and factories 'mushrooming' in the cities. Thus it was argued that although there is a case on welfare grounds for raising the quality of life on the estates, there is no economic justification for the expenditure incurred as the labour force will migrate to the cities in any case.

The view was put forward that the shortage of labour in the estate sector need not be regarded as a detrimental trend, but rather as an integral phase of development that has to be adjusted to. The shift from agriculture to industry is part of the inexorable process of change in a developing economy. If rural-urban migration were curbed, then this would prevent the flow of labour needed to work in

the factories. The country's economy would be retarded as a result. Furthermore, analysis carried out showed that urban migration does not appear to have adversely affected total production on the estates. Also, it was pointed out that to stem the migration of labour to the cities would be contrary to the Government's efforts of stepping up the absorption of the indigenous population into urban activities.

6.3 Scope for Mechanisation

It can thus be concluded that the solution to the labour shortage in the estate sector lies in mechanisation. Automation on the estates would not only reduce the dependency of the production process on manual labour, but also increase the productivity of the workforce. This is crucial if total output of the estates is to be maintained, or increased for that matter, in the light of the depleting labour force. In addition, mechanisation would help towards improving the working conditions on the plantations by making easier some of the more arduous tasks now performed manually, thereby reducing the drudgery of estate work.

However, can the tapping of the trees and harvesting of the fresh fruit bunches be mechanised? Pessimism has been expressed by some quarters of the industry regarding the potential of technological innovation on the grounds that machines cannot be used for tree crops.[1] Also, the steep and difficult terrain on which the estate crops are normally grown does not facilitate mechanisation. Nevertheless, in spite of these handicaps, there have been significant breakthroughs in the technological innovation of labour-saving devices for use on the estates.

One example is puncture (or incision) tapping, which is still in the experimental stages.[2] This method of exploitation enables an increase in the tapping task size. It also simplifies the tapping

process to an unskilled operation. Tapping requires a considerable degree of skill as the maximum amount of latex has to be extracted with the minimum possible tree wounding. However, with the shortage of labour, skilled tappers have been difficult to obtain. If successful, puncture tapping would not only reduce the amount of labour required, but also solve the problem of obtaining skilled tappers.

Another labour-saving innovation is the polybag collection of latex.[3] This enables the frequency of latex collection to be reduced, thus leaving the estate worker free to tap more trees in a day. Latex is normally collected daily. But by replacing the cups, which are usually used to hold the latex, with polythene bags, collection frequency can be reduced to once every fourteen days.

There have also been developments in the mechanisation of the harvesting of fresh fruit bunches. One example is a motorised cutting equipment powered by a gasoline engine.[4] Another area in which progress has been made is infield transportation. The fresh fruit bunches harvested have to be carried to collecting points for transportation to the mill for processing. Many different systems of infield transportation have been developed. An example is a tractor fitted with a forklift attachment.[5] This system enables the collection of fruit bunches at the point of severance from the palm. The time consuming task of collecting the loose fruits, which normally scatter on impact with the ground, is thus avoided.

Thus, there is scope for automation in the plantation industry. Mechanisation will increasingly be depended upon in the production of estate commodities. Malaysia is developing rapidly and there are already signs of a shift of interest away from agriculture, which is a typical symptom of the need to mechanise. The Fourth Malaysia Plan (1981-1985) has targetted for a decreasing share of the agricultural

sector in total employment from 40.6 per cent in 1980 to 35.9 per cent in 1985.[6] Also, rising costs of labour will feature prominently in the future. This will be partly attributed to the general rise in the cost of living, with consequential demand for wage increases. The other contributory factor is the expansion of the industrial sector, which will place a heavy strain on labour availability in the agricultural sector. Automation is also a necessary concomitant of greater productivity.

The search must therefore be intensified for new technologies to reduce the dependency of the production process on manual labour. Although some research work is being done, neither is it adequate nor does it have the urgency that the situation warrants. The research and development of estate mechanisation should be tackled on an industry-wide basis as this involves a substantial financial investment. The long-term results however will more than offset the costs incurred. The Government, through its agencies, namely the Rubber Research Institute of Malaysia (RRIM) and the Palm Oil Research Institute of Malaysia (PORIM), should play a leading role in the technological innovation of labour-saving devices for use on the estates.

6.4 Role for Immigrant Workers

It was mentioned in chapter three that estates have resorted to hiring illegal Indonesian immigrant labour on a contract basis. There is a large force of illegal Indonesian immigrant labour employed on estates, particularly in the adversely affected labour shortage states of Johor and Pahang. Official data on the number of illegal Indonesian immigrants in the country are not available. Various estimates put the figure as ranging from 60,000 to as high as 200,000. The numbers disclosed could just be the 'tip of the

iceberg'. The industry has called upon the Government to issue short-term work permits to these immigrants so as to provide an immediate relief to the labour shortage situation. This section looks at the issues involved in harnessing such a potential source of labour supply.

The question of whether to grant these illegal immigrants a temporary residential and working status represents one of the contemporary crucial issues in the country. On the one hand, the economic well-being of the country is balanced against accepting the illegal practice. The labour shortage in the plantation industry poses a threat to the country's economy. On the other hand, the potentially explosive nature of any liberalisation of immigration, in terms of its broader social, political and economic repercussions in the long term, cannot be ignored. Furthermore, the country does not enjoy full employment despite labour shortages in certain sectors.

Although the proposal is only for employment on a short-term contract basis, it is doubtful if these workers will return home once their services are no longer required. It was noted in chapter one that, traditionally, Indonesian immigrants have wanted to settle in this country. The cultural and racial similarities make adaption to life in this country easier. There is thus little reason to expect that these illegal immigrants will be any different and return home at the termination of their contract.

Implications will also arise in terms of changes in the structure of population. For example, there are an estimated 100,000 illegal Indonesian immigrants in Johor.[7] This constitutes one-twelfth of the state's population. The ethnic balance of the state will therefore be upset. Malaysia is a plural society with the usual sensitivities and problems of such an environment. Importing labour would create social and political problems that are perhaps best avoided.

The illegal immigrants also pose a threat to the welfare of the local estate workers. They are willing to work under less attractive conditions and for lower pay. It was reported that an Indonesian husband and wife harvesting team were prepared to accept only $15 for an entire day's work.[8] A Malaysian couple would demand $25 per day for working from early morning until lunchtime. Such a situation has given rise to cases where unscrupulous employers have refused to improve the lot of their Malaysian workers, hoping they would quit so that cheaper Indonesian labour can be hired.

Thus, given an endless stream of cheap and less choosy migrant labour, management will have little or no incentive to employ local workers at higher wages. This will give rise to a 'take it or leave it' attitude by the employers towards the local workers. The danger then is that the country will be importing the poor from Indonesia and allowing them to dictate the poverty levels of their Malaysian host community. Apart from posing constraints to upward wage adjustments, these migrants will create additional pressure on infrastructural facilities. The other danger is that the availability of these migrants will remove the incentive to search for new technologies to adjust to the labour shortage situation. Therefore, on the one hand, the dependence on these migrants will grow, and on the other, the more fundamental adjustments will not be made.

The illegal immigrant problem is complicated by sensitive political issues. It is an open secret that the Government has 'turned a blind eye' to the inflow of the illegal immigrants into the country. One reason for this is the country's close economic and political ties with Indonesia. Also, their presence serves to tilt the racial balance of the country in favour of the indigenous population. The immigrants share a similar racial and cultural background, and are accepted by the indigenous community.

The influx of illegal immigrants into the country can be expected to continue. Earnings potential in Malaysia is presently attractive relative to conditions in Indonesia. However, the inflow of these immigrants cannot be allowed to go on unchecked. Apart from leading to their unscrupulous exploitation, it also spawns crime amongst those without jobs. It has been reported that a considerable number of illegal immigrants have been involved in a recent spate of crime and violence.[9]

Reports are circulating that the Government intends to regulate the inflow of Indonesian immigrants into the country. A task force comprising of the various Ministries concerned has been directed to look into the details of formulating a policy on immigrant labour in the plantation sector. At the time that this thesis was written, the Government had yet to announce its policy on immigrant labour. It is important that provisions be included to safeguard the welfare of the immigrant workers. The latter should be treated in exactly the same way as local estate workers, and their employment subjected to the labour laws prevailing in the country. The exclusion of these provisions would be deemed as exploitation of cheap labour.

Is the move to endorse the employment of immigrant labour justified? It has been pointed out that the shortage of labour in the estate sector poses a potential threat to the country's economy. The importance of rubber and oil palm to the national economy has already been referred to at the start of this chapter. The fact that the local labour force is reluctant to work on the estates must also be taken into account. In addition, research and development of estate mechanisation will take time to yield results and thus does not provide an immediate solution to the labour shortage situation. In the meantime, output on the estates may be in danger of falling.

Against this background, it can be argued that there is an economic case for immigrant labour, but the emphasis must always be on short-term. This recourse must be regarded only as a stop-gap measure, and not as a long-term solution to the labour shortage situation. The industry should take opportunity of this temporary reprieve to intensify its search for new technologies to reduce the dependency of the production process on manual labour. The permanent solution to the labour shortage in the plantation industry lies in mechanisation.

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